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TORONTO

ART IN EVERY DAY LIFE

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New York
THE MACMILLAN COMPANY
1929

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Set up and electrotyped. Published September, 1925. Reprinted
March, June, 1926; January, May, 1927; January, 1928; January, 1929.

TO

MILDRED WEIGLEY WOOD

PREFACE

The object of this book is to show the principles of art as they are seen in familiar works of art, and as they are related to every day problems, such as house design and decoration, store decoration, costume design, advertising, and city planning. In each of these fields one works with sizes, shapes, colors, and textures, which must be selected and arranged in accordance with principles of beauty. These principles are fully explained, and they are applied in so many various fields that even the person without native ability can learn to apply them to any problem.

A significant feature of the book is the profusion of illustrations —both photographs and drawings—which clearly demonstrate the main points of the text. These are so fully described in the legends that it is possible quickly to review the facts contained in the book by studying the illustrations.

The first part of the book is devoted to an explanation of the principles of art. The illustrations in these chapters are from the fields of fine arts, from exterior and interior design, costume design, and from business. They should help one to solve the simplest as well as the most complicated problems.

The chapters on color explain, simply and clearly, the two most commonly used color systems,—the Prang and the Munsell. Color knowledge is applied to the solution of problems in the fields of homemaking and business, and the reader is given sound reasons for making color selections and arrangements.

A chapter called *How to Make a Design* explains and illustrates a very simple method of working out designs for different purposes.

In another chapter, a typical art problem has been analyzed, in order to point out the factors which the reader should consider in making designs, or making purchases which he hopes to enjoy over a long period.

Under *Dress Design*, suggestions are given for planning costumes, which, in color and design will be economical, beautiful, and becoming to different types of people. Historic, rather than modern costumes have been chosen to illustrate the principles of art in

clothing design, because of the danger of confusing fashion with beauty in the styles that are seen every day. A simple method of drawing a lay figure is explained, and fully diagramed. Four figures are reproduced, which are large enough to trace for use in designing costumes. These are drawn according to the proportions of the average woman's figure, the fashion figure, and the average high school girl.

The material on *Interior Design*, which includes chapters on *Flower Arrangement* and *Picture Selection and Arrangement*, deals with the meaning of design and with the selection and arrangement of house furnishings. These chapters show the difference between the expressions of formality and informality; between the social and the domestic spirit in art; and the difference between masculine, feminine, and impersonal qualities in design. An important part of this section is *Making the Best of One's Possessions*, where attention is given to problems of rearrangement and elimination. The photographs of interiors show a variation of materials ranging from the simplest to the more costly, and emphasize the fact that the individuality and charm of a room do not depend upon the cost of one's belongings, but upon the beauty of their form, color, and texture, and the way in which they are arranged.

It is highly desirable that the reader should think of the illustrations merely as groups containing sizes, shapes, and colors, arranged to show a principle or an idea, and to translate the objects themselves into his own belongings. In this way, the store decorator, for example, will find suggestions in the material which applies directly to homemaking, while the general reader may gain ideas from all the fields.

The very close interrelation of the æsthetic and the practical in this work should serve to increase the reader's enjoyment of art, and at the same time enable him to bring beauty into his surroundings. The book is planned to serve as a text-book for students of art, of home economics, and of salesmanship, and it is hoped that it may be a helpful reference book for salesmen, store decorators, advertisers, and homemakers.

Acknowledgment is made to many authors and teachers whose work has unconsciously molded the thoughts and the experiences of the writers: to Finch, Van Slyck, and McConville, who, through

their advertising manager, Mr. C. E. Lawrence, gave permission to reprint material and illustrations from *Art Principles in Selling* (prepared by Harriet Goldstein for the advertising service of "The Finch Merchant's Advertiser's Club"); to those who generously permitted the photographing of their homes and their possessions, as well as to those who have allowed the reproduction of photographs, and advertisements; to the students and the homemakers whose discussions of the photographs helped us to select the pictures which would be most helpful to others. The authors wish especially to express their appreciation to the friends who read the manuscript during its preparation, and gave much valuable criticism.

H. G.
V. G.

St. Paul, Minn.
July, 1925

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ART IN EVERY DAY LIFE

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CHAPTER I

THE IMPORTANCE OF GOOD TASTE

When beauty is expressed in our surroundings, it becomes a part of our life and our personality. It is not a thing to be set apart for occasional enjoyment, but should be sought in everything we do, and in everything we select. Beauty is not determined by the cost, but by the quality of the objects which are chosen. People who like the effect of richness should know how to appreciate the restraint that marks the difference between the rich and the gaudy, while those who like simple things should realize that there is a point where plainness becomes monotonous and unimaginative. Training will show where merely a variation in proportions, or the addition of some simple note of contrast will result in a quality and beauty which might otherwise be lacking.

Good taste, in the field of art, is the application of the principles of design to the problems in life where appearance as well as utility is a consideration. This includes the selection and the arrangement of all our belongings—our communal as well as our personal possessions. For the sake of economy as well as beauty it is of the greatest importance that every individual should understand and apply these principles of art. Since the appearance of the things which we acquire causes us to enjoy some of them permanently whereas others give us no pleasure, it is at once a responsibility and an advantage to be able to judge discriminately. (See Figs. 1 and 2.)

The idea is all too prevalent that art is decoration and that an object must be ornamented if it is to have "art quality." This idea must be abandoned before a person can have a true appreciation of art. The person who has

FIG. 1.—This room would help to establish good standards of beauty for a family and would be enjoyed permanently, for it shows the application of the principles of order and beauty. Observe how the fine quality of the well-proportioned fireplace, the picture, and the other furnishings of the room are brought into relief by the simplicity of the walls and the rug.

this appreciation gains perfect satisfaction from an object which is undecorated if it is beautiful in shape and color. When decoration is used it should be simple. Over-decoration is one of the worst of faults.

Taste is molded, to a very large extent, by the things which surround one, and the family taste is trained by the objects selected by the homemaker. There is, therefore, a distinct obligation in the home to set the highest possible

standards of beauty. This is becoming widely recognized, and there is an ever growing demand for information which will help people to become more intelligent consumers. Since art is involved in most of the objects which are seen

FIG. 2.—This room gives one a sense of confusion. It shows poor taste in the selection and the arrangement of the furniture and the decorative objects. Such a room would have a bad influence upon the people who might live in it, for it would tend to dull their sense of beauty.

and used every day, one of the great needs of the consumer is a knowledge of the principles which are fundamental to good taste. It has been said that good taste is doing unconsciously the right thing, at the right time, in the right way. Unfortunately, very few people are born with this rare gift, but it is comforting to know that with study one can consciously apply the principles, until the wished-for time is reached when the right thing is done unconsciously.

Too often it is thought that art means drawing and painting only, and the fact that pictures are but one of many kinds of art expression is often overlooked. "I'm no artist. I can't even draw a straight line." How many times that has been said! As a matter of fact the man who can draw the straightest line may not have a particle of artistic ability, and the one who can not draw may be an artist in one of the best senses of the word. The woman who selects beautiful furnishings for her home or the clerk who chooses the right hat and dress for a customer has done a piece of work that calls for much the same kind of knowledge as the man who designs and paints a picture. These are all questions of art, or design, and the only real difference is in the materials used. This is easily recognized when the meaning of design is clearly defined.

Design is the selecting and arranging of materials, with two aims,—order and beauty. One man uses an ordinary piece of canvas and some paints, and people cross continents to see his picture; another man starts out with the same materials and the result is a worthless daub. What is the difference? It is just the difference in the qualities of order and beauty. Similarly, one milliner will take buckram, silk, and a flower or two, and produce a "creation"; another, who has the same technical ability in constructing a hat, but no appreciation of design, will take the same materials and produce an ugly hat.

This interest in order and beauty is not confined to the artist. For instance, one may say that he is not really concerned with art, because he never intends to make a hat, a dress, or a table. This may be true, but he is likely to select such things and perhaps help some one else select them, and after they are purchased they have to be related to other things. Solving these problems of purchasing and arranging requires the same knowledge of the principles of art as goes into the creation of objects. The original idea,

and the actual process of making are all that the purchaser does not have to supply.

How much would it mean to everyone who selects articles of clothing and home furnishings to be able to do so according to the right principles, so that he will be satisfied to live with these things until they are actually worn out. Homemakers, who are planning to furnish their homes, or to rearrange those already furnished are anxious to have an art basis for the selection of the new things. Women wish to know what colors and styles are becoming or unbecoming; salesmen want to tell people confidently, with reasons, that certain patterns and colors in wall papers, draperies or rugs are good or bad, where particular colors and patterns are good, and how they should be combined. All such problems call for good taste and can be solved by the application of five fundamental art principles to the structure of objects and their decoration. These principles, which can be used as a measuring stick to judge taste are: (1) *harmony*, (2) *proportion*, (3) *balance*, (4) *rhythm*, and (5) *emphasis*.

CHAPTER II

STRUCTURAL AND DECORATIVE DESIGN

Historic art shows that a good design has an enduring quality and will outlast the mode of the hour. The person who is interested in economy as well as in beauty, therefore, should learn to recognize good design.

Design is any arrangement of lines, shapes, and colors. It involves the problem of choosing these shapes and colors, and then of arranging them. A good design shows an orderly arrangement of the materials used, and, in addition, beauty in the finished product. There are principles and standards for good design, and there are methods which if followed will assist the worker in securing a well organized design.

Definition of structural and decorative design. There are two kinds of design—*structural* and *decorative*. *Structural design is the design made by the size and shape of an object, whether it be the object itself or a drawing of that object worked out on paper.* The color and texture of the object are also a part of the structural design. *Decorative design is the surface enrichment of a structural design.* Any lines, colors, or materials which have been applied to a structural design for the purpose of adding a richer quality to it constitute its decorative design. Structural design is far more important than decorative design because it is essential to every object, while decoration is the "luxury" of design.

Requirements of a good structural design. If an object is intended for use the requirements of its structural design are:

(1) That it be suited to its purpose in addition to being beautiful.

(2) That it be simple.
(3) That it be well proportioned.
(4) That it be suited to the material of which it is made

FIG. 3.—This vase illustrates structural design which is good because it has pleasing proportions, simplicity of line, and is suitable for its use.

and to the processes which will be followed in making it. Only when the designer has fulfilled all these requirements may he ask if the shape, the color, and the texture have given enough interest to the object, or if there is a sense of barrenness which needs to be relieved. The vase in Fig. 3 is an example of a structural design in which the shape, color, and texture of the pottery give so much interest that

one does not feel the need for decoration. There is fine dignity in a structural design which is so beautiful that

FIG. 4.—This vase shows a structural design which is poor because its proportions are ugly, its lines are erratic, and it is not suited to its purpose of holding flowers.

there is no desire for added decoration. Fig. 4 shows a bad structural design. This vase is ugly in shape, and no amount of good decoration would help it. It not only lacks beauty, but it is not useful as a flower container; its curves are exaggerated and its proportions are poor. A comparison of these two vases emphasizes good structure as the first requirement of any object if it is to give lasting satisfaction.

The decorative design or enrichment of an object should be consistent with its use. To illustrate this,—it would

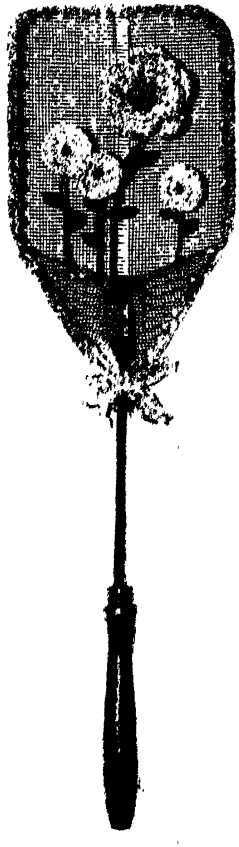


FIG. 5.—Since the decoration of an object should be consistent with its use, a fly swatter decorated with wool flowers is manifestly absurd.

seem suitable to have a line of color painted on a dust pan, but a design with flowers would be out of keeping with the service which the dust pan is to render. The height of incongruity is seen in Fig. 5, where a fly-swatter has been

decorated with wool flowers. These two examples represent the wrong type of decoration for objects which are to be used for very humble purposes.

FIG. 6.—CHINESE VASE. (*Courtesy of the Minneapolis Institute of Arts.*)
Structural and decorative design with the emphasis where it should be,—on the structure. The decoration does not call the interest away from the structure, but supplements and enhances it.

(*Requirements of a good decorative design.*) Having decided that the object is worthy of decoration, and that its structural design is simple and beautiful, the designer plans his decoration. No matter what his problem may be—whether it is the decoration of a vase, a costume, a room, or a chair—his design should fulfill all the following considerations:

(1) The decoration should be used in moderation.

(2) The placing of the decorative design should help to strengthen the shape of the object.

(3) The decoration should be placed at structural points.

(4) There should be enough background space to give an effect of simplicity and dignity to the design.

(5) Surface patterns should cover the surface quietly.

(6) The background shapes should be as carefully studied and as beautiful as the patterns placed against them.

(7) The decoration should be suitable for the material and for the service it must give.

The Chinese vase, Fig. 6, is an example of good decorative design on a good structure. The structural design is suitable for a vase; the decoration is assembled into an orderly band which divides the vase into interesting spaces, and when one studies it he discovers a pleasant variety in the details; the design gives an added interest to the whole without calling undue attention to itself.

The designer whose work shows real quality adapts or conventionalizes his design to suit the material he is using. He does not attempt to deceive by imitating real objects, such as flowers and fruit done in wood, clay, or threads, but having decided to take a flower or leaf idea as the theme of his decoration he alters it to suit:

(1) The shape of the object.

(2) The purpose for which the object will be used.

(3) The limitations of his material.

(4) The tools and processes he must use.

The person who makes an intelligent selection of any article needs to have as good a judgment of structural design and decorative design as the designer. A comparison of the vases in Figs. 7 and 8 will make this point clear. Both are intended to hold flowers. Both have good structural design. Both designers took the leaf form for their theme. There the similarity ends. The man who designed the Rookwood vase appreciated the fact that his vase was

to be a background for flowers, and for that reason must be less conspicuous than the flowers which might be placed in it. Next, he studied the shape of his vase to see where

FIG. 7.—(*Courtesy of the Rookwood Company.*)
In this vase the decorative design has been made to give interest to the structure; the leaves and stems have been conventionalized and adapted to the pottery, and the decoration has been subordinated to the shape of the vase.

the decoration might be placed in order to enhance that shape, and he decided upon a "growth point" on the vase. He believed that decoration should be a part of structure and should grow out of it, and not be stuck on. With suitable tools he worked out a leaf and stem idea which would

make a good pattern against the background of the vase. So long as the proportions and shapes in the design were pleasing, and the background shapes agreeable he was

FIG. 8.—The good effect of this structural design has been spoiled by the addition of the decoration, which is too naturalistic and too elaborate.

satisfied. He was not at all concerned about our ability to identify his original motif, whether it be a flower, a bud, or a leaf; it is adapted to its use, or in other words, conventionalized, and the result is good. The man who designed Fig. 8 has produced an ugly vase because he was interested only in imitation and in ostentatious display. The leaves have not been conventionalized, or adapted to the decora-

tion of a flat surface, but have been modeled to imitate a cluster of real leaves and then painted in natural colors to complete the deception. The designer ignored the structural design of his vase and draped his decoration over it,

FIG. 9.—CHINESE, MING PORCELAIN. (*Courtesy of the Victoria and Albert Museum.*)

While this Chinese vase is beautiful in its structural and decorative design, it is too emphatic to be used as a flower container. It would make a delightful note of emphasis in a decorative scheme.

letting it fall where it would. His decoration is too emphatic to make a background for flowers, and besides being unsuitable for use it lacks beauty, which, in some cases, is "its own excuse for being."

Some things are created for the sake of beauty only, and they are not connected in the designer's mind with practical use. A painting illustrates this kind of creation, and if it is beautiful in composition and color it may be hung in a gallery and enjoyed as an object of quality. However, if the same picture were considered for a home it would be judged from a different point of view, for then it would have to harmonize with the room. We might analyze the vase in Fig. 9 in a similar way. It is rich in design, full of color, and has rare beauty in itself. We recognize that it will bring a note of beauty into a room if it is given the right setting. In selecting an object of this kind let us appreciate its beauty as well as its limitations, for we must know that this is not the sort of vase that one would use to put flowers in. Since it is good in its structural design and beautiful in color and in decoration it fulfils the requirements of a good design and it does not need to serve a practical use. When things are chosen for their beauty alone they must be able to stand the severest tests for art quality, and if they come below the highest standards they should be rejected.

Structural and decorative design in buildings. The Greeks knew the principle of making structural design more important than decoration, and they applied it to everything they did. The Parthenon is a typical example of their dignity and restraint in decoration. (See Fig. 44.) Note that when one looks at the Parthenon his first impression is of a beautiful structure, and after that the decoration comes to his attention. This decoration is not put on with a lavish hand, but with a great deal of reserve; and it has been placed only on those spaces which have grown out of the construction of the building as is seen in the frieze. Appreciation of the design of the Parthenon should enable one to see the merits of more modest structures. It should lead one to recognize that the house in Fig. 10 is a

good design because it "holds together": the lines of the roof appear to tie the house into the grounds, and the parts all grow easily and naturally out of the principal mass of the building; the decoration, which has been introduced by the interesting treatment of the bricks around the doors and window-openings, follows the principles of good design because it enhances the structure and does not come into

FIG. 10.—(*C. H. Johnston, Architect.*)
Note the fine quality of this structural design and the interesting decoration of bricks around the windows and the doorway.

undue prominence. While this house appears to remain in its place, Fig. 11 seems just about to start off for somewhere else. It is a poor, restless structural design. Its parts are too large for the main mass, and the eaves are heavy enough for an enormous house. The decorative design, picked out in white paint, is so prominent that one is more conscious of the decoration than of the structure.

Design in furniture. There is a steady trend towards better quality in furniture design. It is becoming generally recognized that furniture must pass the tests of good structural and decorative design. Furniture, therefore, must be useful and comfortable if it is to serve its purpose well; and it should depend for its beauty more upon fine structure

than upon decoration. Furniture should be so fine in its proportions and in its lines that it shall need very little, if any decoration. A group of good pieces has been assembled in the corner of the display room shown in Fig. 12. There is dignity and satisfaction to the eye when simple designs are used. The turning of the legs of the table, which is really a part of the structural design, although it adds a

FIG. 11.—Compare this poor structural design and its fussy decoration with the charming simplicity of Fig. 10.

decorative note, has given interesting variety to the group. Compare these good structural designs with the chair in Fig. 13. In the attempt, possibly, to suggest comfort, the designer added bulk, and then put on pretentious decoration and upholstery, and the chair became bombastic.

Structural and decorative design in dress. The subject of structural and decorative design in dress will be fully discussed under the topic of "Shape Harmony" on page 35, and illustrated by Figs. 26, 27, 28, and 29. Another illustration of design in the field of dress is shown in Fig. 14. These two collars are typical of "What To Do" and "What Not To Do" in applied design. Since the lines of the decoration

should conform to the shape of the object or depart from it only to a moderate degree, it is readily seen that the upper collar is well designed, and that the lower one is not. The shapes of the inserts are at variance with the shape of the collar and with each other, so that instead of the pleas-

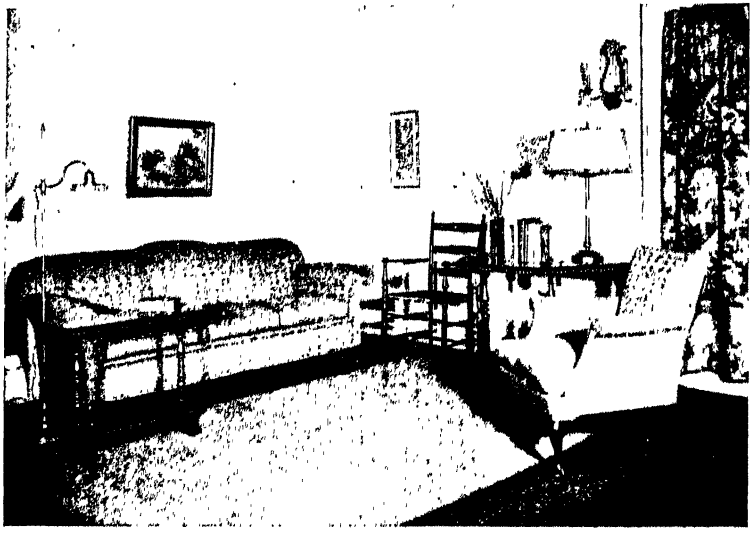


FIG. 12.—(*Courtesy of Wm. A. French & Co., Minneapolis.*)
Simplicity and utility are outstanding features in the good structural design of this furniture. These pieces also illustrate "harmonious sizes."

ing effect produced by the upper collar, the result is disorderly and showy.

Utility in structural and decorative design. The relation of utility to beauty has been emphasized throughout this discussion of structural and decorative design, for the permanent enjoyment of the objects which one purchases depends upon this relationship. A moment's thought will serve to call to mind many familiar cases of the oversight of this factor in design. There is the handsome but uncomfortable chair; its curves are graceful, and its decoration is pleasing to the eye, but the structure is so designed that

it does not form a good support for the back, and a line of decoration, which comes just across the shoulders, causes much discomfort. Unlike a vase, a chair may not exist as a purely decorative object, and so it is obvious that there is no place for an elaborately carved chair back. Among

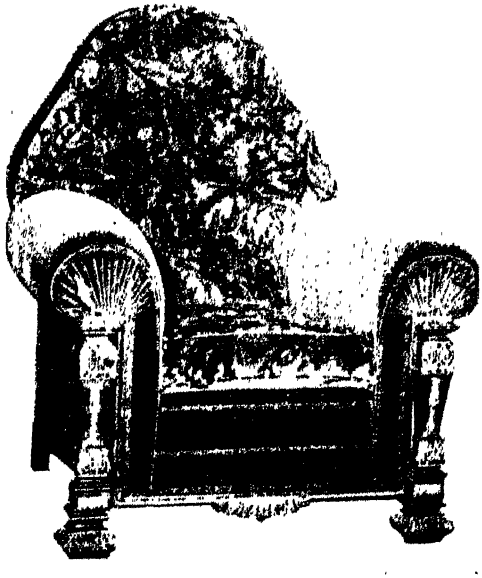
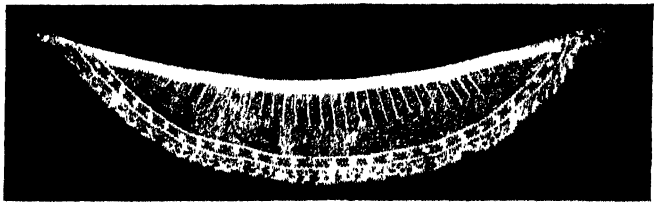


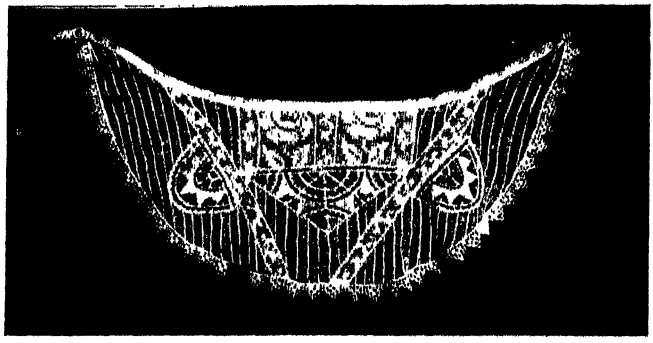
FIG. 13.—The structure of this chair is ugly; it is badly proportioned, and the decoration is too profuse.

other objects besides uncomfortable furniture, one recalls more than a few pitchers and teapots which look well on the shelf, but have handles which hurt the hand, and are so designed that they drip when liquid is poured from them.

From these examples, it is seen that utility is a factor which is involved in design in general, for *the shape of an object should first of all suit its purpose, and the decoration should not interfere with the use.*



A.



B.

FIG. 14.—The requirements of good structural and decorative design have been fulfilled in *A*. *B* is poor design because there are too many unrelated shapes.

SUMMARY. The illustrations just given have served to emphasize the following points, important in the consideration of structural and decorative design:

(1) Structural design is the size and shape of an object. The structural design should be good in shape and in color, and it should be suitable for its use.

(2) Decorative design is the enrichment of a structural design. The decoration should grow out of the structure, and seem to be a part of it.

(3) Conventionalization is the adaptation of a design to its use and to the methods employed in producing it. Decorative designs should be conventionalized.

(4) There should always be an impression of reserve in decoration.

CHAPTER III

HARMONY

Definition of harmony. Harmony is the fundamental requirement in any piece of work in which appearance, as well as use, has to be considered. It is the most important of all the principles of design. *Harmony is the art principle which produces an impression of unity through the selection and arrangement of consistent objects and ideas.* When all the objects in a group seem to have a strong "family resemblance" that group illustrates the principle of *harmonious selection,* and when these "friendly" articles are so arranged that the leading lines follow the shape of the object on which they are placed, harmony has been secured in both *selection* and *arrangement.* How much likeness should be sought and how much variety is appropriate are the questions to be decided in any situation. People who invariably agree with everything that is said become tiresome, and on the other hand, one likes them still less if they persistently disagree. One enjoys a certain amount of variation for the sake of interest, but for the sake of harmony this variation must always stop just short of absolute contradiction in any important matter. Similarly, there should be something in common among all the large things which are to be put together, but the little things which are to be used for accent and variety may contrast. The smaller the amount of this contrasting note, the stronger the difference between the contrasting objects may be.

The aspects of harmony. In both the fine and applied arts the principle of harmony has five aspects. These are

harmony of: (1) shape, (2) size, (3) texture, (4) idea, and (5) color.

Harmony in pictorial composition. Leonardo da Vinci's great masterpiece, "The Last Supper" (Fig. 15) is an excellent picture in which to study the principle of harmony. The picture is a horizontal oblong, and the leading lines of the composition carry out the horizontal idea. There are

FIG. 15.—THE LAST SUPPER, by Leonardo da Vinci. (*Courtesy of University Prints.*)

A masterly example of the principle of harmony. The dominant direction of the lines of the picture is horizontal, repeating the shape of the picture. The vertical line is introduced to strengthen the arrangement and to suggest dignity. The diagonal line gives a note of variety, but it is stopped by the use of the horizontal line before it becomes too vigorous. The transitional line of the pediment over the doorway is introduced to modify the sudden change, and to give unity.

enough vertical lines to strengthen the arrangement, to add dignity to it, yet not so many as to cause any confusion in the mind as to the most important direction in the picture. The diagonal lines of the receding walls are a distinct variation from the quiet horizontal and vertical lines, but they stop before the contradiction becomes too marked. Note how their abruptness has been softened by the use of the curved line of the pediment over the central opening. The

use of this easy transitional line rather than the contradictory line leads the eye surely, but less harshly to the central figure. It is through the study of such examples as this that designers have come to understand the principles of art, and when they are applied to our own problems of arrangement there is the same sort of satisfaction as in seeing Leonardo's superb arrangement.

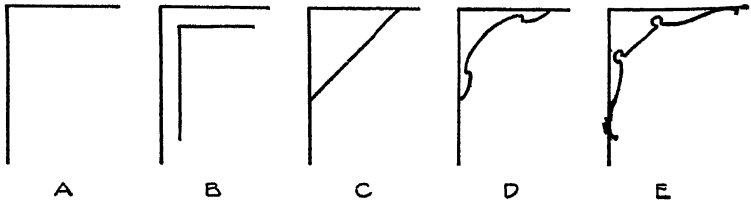


FIG. 16.—The main types of line. *A*. Opposition. *B*. Repetition. *C*. Contradiction. *D*. and *E*. Transition.

Opposition, repetition, contradiction, and transition in lines and shapes. The study of "The Last Supper" showed that lines in a design may fall into four main classes:

(1) Lines which oppose one another.
(2) Lines which follow or repeat one another.
(3) Lines which contradict one another.
(4) Transitional lines, which soften and modify the others.

When a horizontal and a vertical line come together, as in a right angle or a corner, these lines are in *opposition* to each other. (Fig. 16A.) Another set of lines drawn within that corner, following its lines, shows *repetition*. Repetition gives the simplest kind of harmony. (Fig. 16B.) Strictly speaking, any line which cuts across a corner from one opposition line to another is a transitional line; but a straight line drawn across a corner, as in Fig. 16C is so sudden and sharp a connection that it cuts off the corner harshly, and that type of line is called *contradiction*. *Transitional* line in its best sense is an easy, graceful line which leads from

one line or shape to another, giving harmony instead of contradiction. If a curved line were drawn across a corner, as in Fig. 16D the sharpness of the opposition of the horizontal and vertical lines would be modified, and that effect is "Transition." Throughout this book the term "Transition" is used to express a softening, modifying line used to

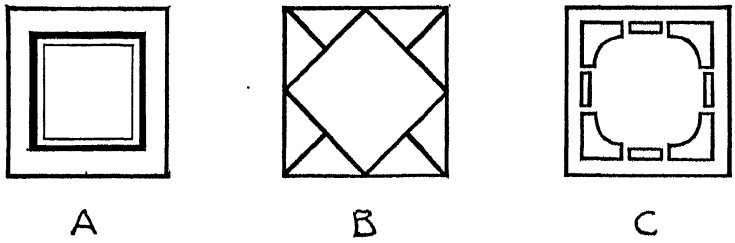


FIG. 17.—*A*. Lines which repeat one another create shapes which show perfect harmony through uniformity. *B*. Lines which contradict one another create shapes which form harsh contrasts. *C*. Transitional or modifying lines create shapes which have pleasing variety with unity.

harmonize opposing lines. It will be found that curved lines make an easy transition from one straight line to another, and when straight lines are used they are made less severe when combined with a suggestion of curved line. (Fig. 16E.)

HARMONIOUS SHAPES. A combination of lines results in shapes. Applying the principles of Repetition, Contradiction, and Transition to shapes which are seen in combination with one another, it will be seen that shapes which correspond to one another are in perfect harmony. (Fig. 17A.) The most harmonious shape which can be put into a rectangle is another rectangle of the same proportions, and a circle makes the closest harmony within another circle. Lines which oppose or contradict each other form shapes which are entirely lacking in harmony. (Fig. 17B.) Some examples of these contradicting,

inharmonious shapes are, triangles, and diamond shapes within squares, oblongs, and circles. Such combinations should be used only where extreme contrasts are desired. Transitional lines have a graceful, softening effect, and have the power to bring together shapes which might, in themselves be inharmonious. (Fig. 17C.)

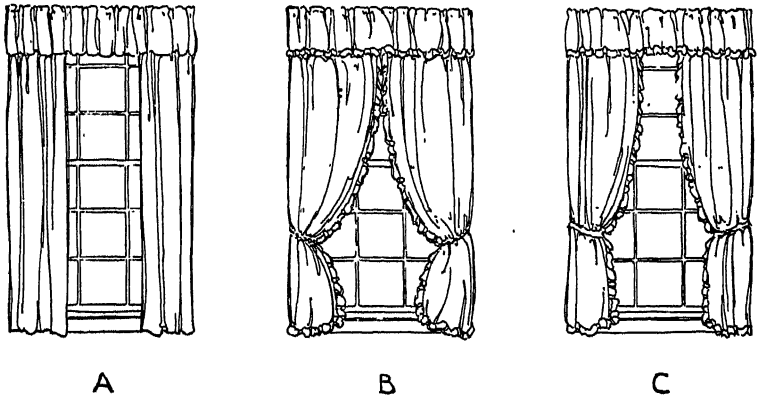


FIG. 18.—Shape harmony applied to the hanging of curtains. In *A* there is perfect harmony and the effect is dignified and restful. In *B* there is contradiction and the shapes which are created are inharmonious. In *C* the transitional lines create shapes which show pleasing variety.

In Fig. 18 the three types of shape are shown in the way the curtains have been hung. In "A" there is shape harmony, and the lines strengthen the shape of the window. This effect is the most desirable because the lines harmonize with the lines of the house, and all the shapes are consistent. "B" shows lack of shape harmony, and the queer, unrelated shape that is left after the curtain has been pulled back in this fashion has nothing in common with anything in a room, and is not beautiful enough in itself to merit such undue attention. When it is desired to have the curtains drawn back it is much better to have a transitional line, such as is seen in "C."

In the doorway shown in Fig. 19, the three types of shape have been successfully combined. Horizontal and vertical lines repeat the main lines of the house; the contradictive lines of the angle over the doorway are gracefully tempered

FIG. 19.—This doorway shows the use of the three types of line: that which repeats the structure of the house; the line showing the sharp variation of the angle; and the curved line which gives a transitional effect.

by the use of the transitional curve carrying across from post to post. This design is restrained, and is varied enough in line to hold the interest.

Transitional lines in planting. In planting about the house, flowers and shrubs may be used to give a transi-

tional line between the vertical lines of the house and the horizontal line of the ground. (Fig. 20.) Here the flowers, shrubs, and vines have tied the building to the grounds so agreeably that it has made the service end of the house

FIG. 20.—The transitional lines which are created by the vines, shrubs, and flowers have served to unify the opposing vertical lines of the house and the horizontal line of the ground. The simple rough texture of the stucco forms an interesting background for the pattern of the vines.

as attractive as the rest of the building. The transitional line has been used in the planting around the boundaries of the yard and it has given an interesting, informal effect. (Fig. 21.) Planting at the edges has made it possible to

have large beds of flowers without sacrificing the fine open space of the lawn. The trees have been placed to make the grounds and the house appear as a unit, and they add privacy by shutting off the view of the houses at the back. The variation in the line of the planting has taken away the angularity of the lines of an ordinary city lot, and has

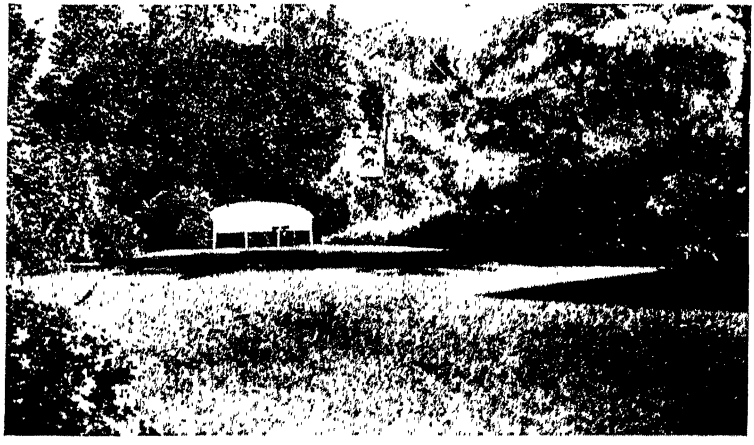


FIG. 21.—Both interest and informality have been secured in this small city lot through the use of transitional lines in the planting at the edges of the yard.

supplied the same type of interest that one ordinarily associates only with rolling land. The transition in planting has been made gradual by placing the low flowers in front.

Shape harmony in arrangements. In any arrangement where a number of shapes are used there should always be an effect of organization, or, in other words, of orderly arrangement. If a sense of order is to result, shape harmony must be present. Large objects or masses should be placed to follow the boundary lines of the enclosing shape and only the small objects should vary from the general directions. To give variety, some of the small objects may be placed at slightly varied angles. Too many angles which sharply contradict the leading lines result in confusion

instead of interesting variety. The two illustrations, Figs. 22, and 23 show both the application and the violation of shape harmony in the furnishing of a room.

Harmony in interior arrangements. In Fig. 23 there is an effect of harmony because the rugs have been placed parallel to the walls, the large pieces of furniture are parallel with the lines of the room, the curtains hang straight with the window frames, and the pictures are hung in an orderly manner. Compare the two rooms, and note the changes that have been made in Fig. 22 to secure the effect shown in Fig. 23. Most of the faults of the arrangement in Fig. 22 are due to a violation of the principle of shape harmony. The diagonal placing of the sofa contradicts the lines of the corner and has destroyed the beauty of the oblong of the room. Putting it this way has made it necessary to confuse the lines still further by placing the rug to go with the sofa, thus making a helter-skelter lot of shapes on the floor. The table also contradicts the lines of the room, and, placed as it is, in the middle of the room, seems to block the way, and make the room seem crowded. The cushions on the sofa do not harmonize in shape and are poorly placed.

The first suggestion for improvement is to move the table up to the end of the room, placing it so that its lines correspond with the lines of the room, and then to place the sofa against the wall. Because these pillows do not look well together only one of them should be retained. In this case the round one, permitted to go into the shape which it naturally takes, rather than flattened out as in Fig. 22, has been placed where it is desired for use. It is now possible to place the rugs so that their shapes will harmonize with each other, and with the room. The curtains are badly hung because the shapes that they make, and the shapes of the spaces between them, destroy the good lines of the windows. The whiteness of the curtains seems in too strong contrast with the rather dark walls and furnishings, and,

since this is an upper apartment overlooking the treetops, and there is no need to protect the privacy of the room by curtains which cover the entire window, only one set of curtains need be used. The curtains in Fig. 23 will let more light into the dark room, and the colors harmonize with the

FIG. 22.—This room is poor because everything has been placed in direct violation to the laws of shape harmony.

general color scheme of the room. (If a second pair of curtains were desired in this room they should be ecru rather than white, and hung straight.) The table cover is badly placed, and looks as if it were so placed to "show off." It could advantageously be replaced by a plainer one, since many objects are used on a living room table, and some of these objects have pattern on them. The table cover should be placed parallel to the lines of the table, if it is a square, oblong, or oval table, and parallel to the lines of the room if the table is round.

Shape harmony has been quite overlooked in the hanging of the pictures in this room, and some of them are badly chosen. Let us eliminate first the pictures over the door at the extreme left, and over the windows; pictures should

never be so placed, for they are so high that they cannot be seen. The two pictures, the oval and the horizontal ones, are not in harmony with the vertical wall space where they are hung, and they do not look well together. Furthermore, a landscape should not be placed in an oval frame,

FIG. 23.—A re-arrangement of the room in Fig. 22. The large pieces of furniture and the curtains have been arranged to harmonize with the shape of the room, and the chairs which suggest curves have been used to give transitional lines. The pictures are related in size and shape, and have been hung on a line at the bottom to harmonize with the line of the sofa.

for the lines of an oval are not natural or consistent for a landscape. The horizontal picture has too light a mat and its mount has violated the "Law of Margins." [1] These two, then, will be discarded. The picture at the right of the window is suitable in value and in general type for the room, but it is too large for the wall space. It is poorly hung, for it is too high, and is hung with one wire which makes a

[1] "The Law of Margins" is explained on page 239.

triangle on the wall, thus introducing a contradictory shape which competes with the picture for attention, and which carries the eye away from the picture toward the ceiling. The four pictures on the right hand wall do not harmonize in shape, color, or in the arrangement of the group. The very light one should be discarded, and so should the enlarged portrait, with its showy frame. This group will be discussed again in the chapter on "Picture Selection and Arrangement." Now all the pictures are down, and must be rehung. The wall spaces on either side of the windows are small, and there are color and pattern in the draperies, so that it is best not to have pictures on those walls. Three pictures which have some harmony in size, shape, color, value, and idea have been selected, and they are so hung that the bottom edges of the pictures follow the line of the sofa.

Thus far all the objects in the room have been placed so that they follow the lines of the room, and so are in perfect harmony. The two chairs have not been lined up with the walls, but, for the sake of variety, have taken transitional lines. Chairs are movable objects, and it is perfectly reasonable to place them in this manner, unless they are large, severely straight in line, or have a very formal appearance. In that case they should be treated with all the formality of a large piece of furniture, and placed parallel with the lines of the room.

The formal Italian chairs in Fig. 93 are the sort that should be placed to follow the lines of the room, while in Fig. 205 the large wing chair in the corner of the room, and the chair at the extreme left show the kind of curved line chair which may be swung around to form a transitional line. Curved line chairs fit into, and agreeably soften the angular spaces which are left when a straight line table is placed against the back of a davenport. Side chairs which have curved lines lead the eye easily toward and away from a desk, as seen in Fig. 239.

Fig. 24 shows the use of the transitional line to harmonize the extreme contrast between the high, slender vase, and the flat line of the books. It is suggestive of the many things that can easily be done in a house to bring charm or interest

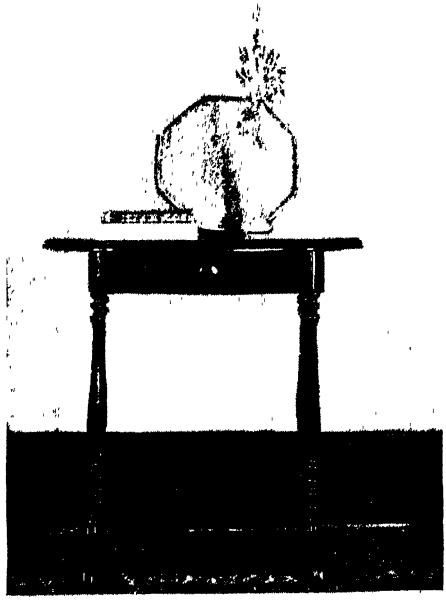


Fig. 24.—In this group the sharply contradicting lines of the vase and books have been related by the transitional lines of the tray.

into what might otherwise be commonplace, or poor, and it needs only a working knowledge of the principles of art, and not a large expenditure of money.

Shape-harmony in table setting. Fig. 25 is an example of shape harmony as expressed in the setting of the table for

a simple meal. The same principle would be followed for the most elaborate dinner. Note how the rectangular doilies harmonize with the shape of the table. Notice, also, how the lower line of napkin and silver, placed an inch from the edge, creates a line which is parallel to the line of the

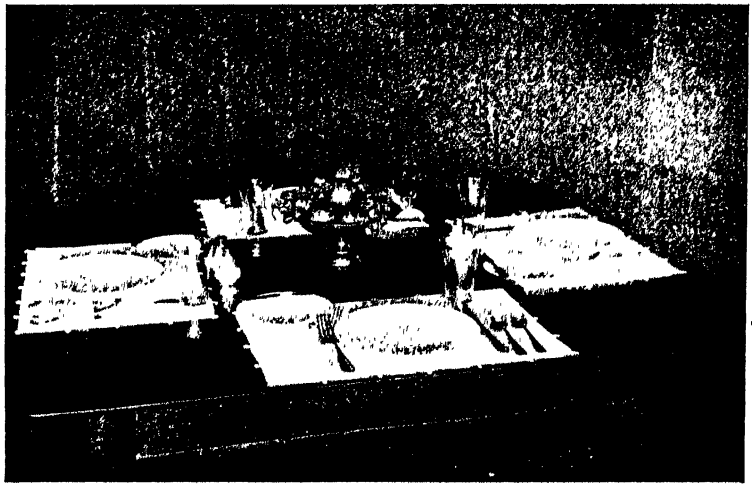


FIG. 25.—So that order and harmony may be secured among the many objects that are used in setting the table, the bottom line of the silver, napkins, and plates should be parallel to the edge of the table; and the other appointments should be placed to harmonize with either the length or width of the table.

table; how the napkin has been folded into a rectangular shape rather than the triangular shape which is so frequently seen; how the placing of the salt and pepper shakers, the water glass, the bread and butter plate, and each piece of silver harmonizes with one of the dimensions of the table. When placing the serving dishes, those which are oblong should be placed so that their lines follow the lines of the table. When dishes containing food are placed, the table should appear balanced at both ends, as well as on both sides of the center line. Sometimes the bright color of a dish of jelly or relish, placed at one end of the table, will balance a large

amount of more neutral color in the food at the other end. Sparkle, as well as interest, may be added to the effect by balancing color at opposite ends of the table.

FIG. 26.—(*Adapted from Giafferi, "L'Histoire du Costume Feminin Francais," Editions Nilsson, Paris. A. Gerbel, New York, distributor.*)

The costumes in FIGS. 26 to 29 illustrate types of structural and decorative designs in dress. In FIG. 26 the silhouette of the mediæval costume is in harmony with the figure, and the lines of the decoration are in perfect accord with the structural lines of the dress. This illustration shows what is meant by the term "conservative dress."

Shape harmony in dress design. It should be noted that there are two design elements to consider in a dress:

(1) The structural design, which includes the silhouette and the lines within the dress.

(2) The decorative design.

Since a dress design in itself is not considered as a complete

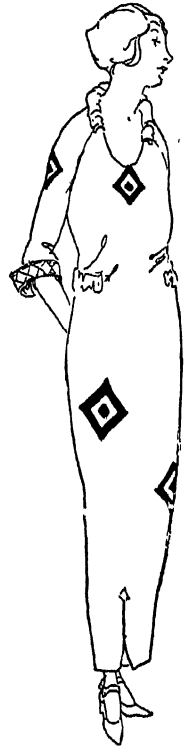


FIG. 27.—COSTUME OF 1914. Here the dress follows the figure too closely to give freedom in walking, or to look well. The diamond-shaped medallions show absolute lack of shape harmony in relation to the dress, and they are placed without any reference to the lines of the structure.

unit, but as something to be worn on a human figure, its lines should suggest some relationship to the lines of the figure. This means that its outline will follow the form closely enough to have something in common with it, yet

not so closely as to appear immodest or to be uncomfortable. In order that it may suggest the beauty of the figure, it should not bulge at unexpected places. Historic costumes show that silhouettes fall into three main groups—first,

FIG. 28.—(*Adapted from Giafferi, "L'Histoire du Costume Feminin Francais," Editions Nilsson, Paris. A. Gerbel, New York, Distributor.*)
This silhouette of the late Renaissance is obviously inconsistent with the lines of the human figure, and the lines within the dress contradict the silhouette. The result is a dress which would appear ridiculous as soon as the mode had passed.

the natural silhouette as seen in Fig. 26 which is good because it harmonizes with the figure; second, the extreme silhouette, either following the figure too closely, as in Fig.

27, or opposing it too greatly, as seen in Fig. 28; and third, a silhouette which is just between these two extremes, showing a variation in the outline but not enough of a change from the line of the figure to lack harmony. (Fig. 29.)

FIG. 29.—(*Taken from Giafferi, "L'Histoire du Costume Feminin Francais," Editions Nilsson, Paris. Gerbel, New York, distributor.*)
The silhouette and the lines within this dress of the Louis XIII period show the effect of transitional lines which neither oppose the figure nor follow it too closely.

Those interested in dressing economically should pay a great deal of attention to shape harmony when buying clothes. In looking over old fashion magazines one will see that it is not the details of the old dress that look queer

now, but the general outline or silhouette in relation to the figure. This leads one to the conclusion that where the lines of the dress are simple, harmonizing with the lines of the figure and neither contradicting nor following the figure too closely, the result is a dress which can be worn several seasons without making the wearer look conspicuous. (Fig. 26.)

The lines within the dress, such as the lines created by yokes, vests, collars, panels, tucks, and trimming are influenced very little by fashion. These lines may always be so chosen that they will be becoming to the person who is to wear the dress, and they should create shapes which are beautiful, and in harmony with the lines of the figure, the silhouette of the dress, and all the other shapes which appear together. In Fig. 26 the lines within the dress show perfect harmony. In Fig. 28 there is lack of harmony, and Fig. 29 shows the use of the transitional line within the dress, as well as in the silhouette.

The use of line to alter the appearance of shapes. The use of any of the three types of line,—repetition, contradiction, or transition, has a definite effect upon the appearance of the shape against which the lines are placed. This may be seen by looking at Fig. 17. The lines in "A," which repeat the enclosing shape have the effect of calling attention to its squareness positively. The contradicting lines of "B" have called attention to the squareness harshly by the extreme contrast of the shapes. "C" has been made to appear less severely square because of the use of the transitional line. Advantage may be taken of these effects to secure changes in the appearance of things one may desire apparently to alter where an actual alteration is impossible.

In order to apply the artist's methods of using harmonizing, contradicting, and transitional lines, to the selection of collars or yokes for faces of different shapes one must remember that:

(1) If the shape of the collar repeats the shape of the face, it emphasizes it.

(2) If the shape of the collar contradicts the shape of the face it also emphasizes it.

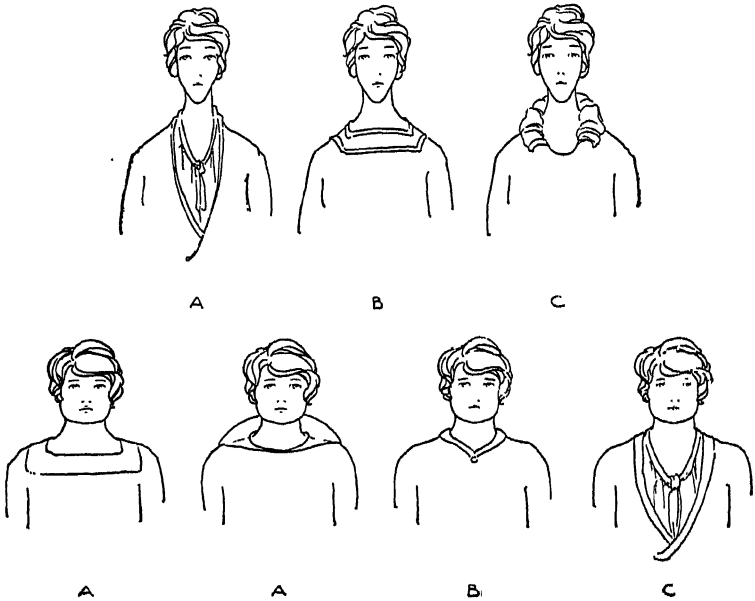


FIG. 30.—To show that the shape of the face may be apparently changed by the choice of neck opening. *A*. Shapes which follow each other are emphasized through repetition. *B*. Shapes which are directly contradictory are emphasized by contrast. *C*. Transitional lines seem to modify each other.

(3) If the collar takes a transitional line,—that is, a shape between the last two which neither repeats nor contradicts,—it modifies and softens the lines. (Fig. 30.)

For faces which are too square or too round, the best results come from using transitional shapes, such as long ovals and long rectangles. A knowledge of the effect of various lines apparently to change proportions is useful here, and will lead one to see that square and round faces need a long line, obtained by fitting the collar closely against the neck

and carrying down to an oval. This oval may be slightly inclined toward a point as it gets farther away from the face when the power to contrast becomes less strong.

A woman who has a drooping mouth or a weak chin should not buy a hat with drooping lines. (Fig. 31.) Similarly, a straight severe sailor is poor for a square face. If the face is round, one should not emphasize it by a round crown or a closely fitted turban, but rather bring a transitional or a

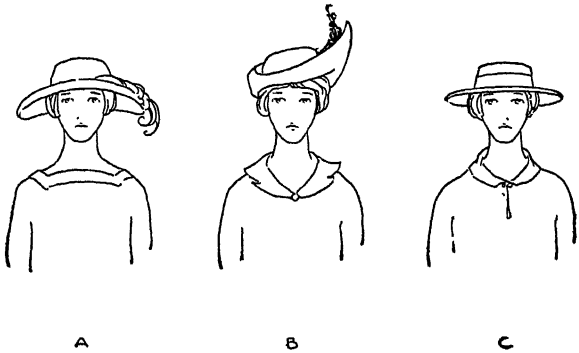


FIG. 31.—To show that the facial expression may be modified by the choice of line in hat and dress. *A.* Drooping lines exaggerate a drooping mouth through repetition of directions. *B.* Contradicting lines call attention by contrast. *C.* Transitional lines, neither repeating nor contrasting, seem to neutralize.

broken line into the brim and attempt to secure the softening influence of a shadow.

Shape harmony in the decoration of a dress. Having considered shape harmony in relation to the structural design of a dress, the next step is to determine where the decorative design should be placed, if the dress is to have decoration. Since good decorative design always harmonizes with structure, the placing of the decoration will be conditioned by the structural lines which have been decided upon. Figs. 26 and 175 are examples of well placed decoration, while Fig. 27 is poor. The diamond shape motifs are out of harmony with the structure of the dress,

and they have been put at places which have no relation to it. One likes to feel that the decoration has grown out of the design of the dress and has not been dropped on, as it appears to have been on this one. Diamond shapes are exceedingly difficult to use in design, because they are related to very few structures. One frequently sees them very badly used as windows placed in the doors and walls of a house, in the corners of curtains, and on household linens, as well as on clothing. Diamond shapes may be used successfully if they are connected by lines strong enough to carry the eye along the structure on which they are placed, or arranged so close together that they form a band, as shown on the sleeve of the dress in Fig. 27.

Shape harmony applied to hairdressing. Looking over the pages of historic costume, one smiles and marvels at the various ways that woman has found to dress her hair,—many ways in which all resemblance to the human head has been ignored or contradicted and many others which are perfectly rational, and very beautiful. The head of the Venus of Milo may well be taken as a standard by which to judge all these other modes. (Fig. 32.) Her hair is dressed so that the resulting silhouette is in perfect harmony with the shape of her head, and interest has been gained through the slight variation at the sides. When one's head is beautifully shaped and the features are regular, one can afford to call attention to the outline by wearing the hair drawn severely back from the face. Wearing the hair drawn rather tightly back from the face, and in a knot at the back calls the greatest attention to the shape of the head. It takes a person with regular features to do this successfully. For most women, a style which has a broken outline is more becoming, and permits them apparently to shorten a high forehead, or to give a broken line around a face which is too square or too round. The hair dress

which is too large, or is made up of queer puffs all out of harmony with the head should be avoided.

Shape harmony in store arrangements. In store arrangements, if an appearance of unity and of dignity is desired, the counters, tables, and display racks should be placed

FIG. 32.—THE VENUS OF MILO. A beautiful example of shape harmony is seen in the way the hair of the Venus has been arranged.

parallel with the walls, as in Fig. 33 "B" rather than "A," which makes the store look as though it were "moving day." Large objects displayed on tables, ledges, etc., should also follow the lines of the building, and, to give variety, some of the small objects may be placed at slightly different angles. If some of the smaller objects are placed so that they create contradicting lines, these

lines may be agreeably softened by the use of transitional lines secured through draperies, or by objects which in themselves have this kind of line. All that has been said about shape harmony in the house carries over directly into the problem of arranging a store or a window display.

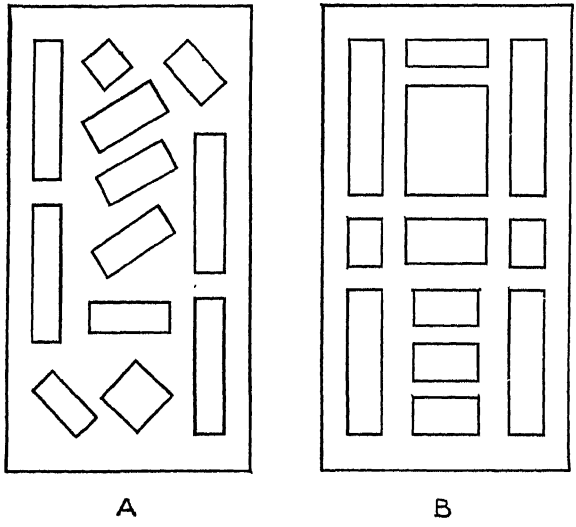


FIG. 33.—The oblongs represent the floor plan of a store, showing arrangements of counters and tables. In *A* the principle of shape harmony has been ignored, and the result is confusion. In *B* there is dignity and harmony because the large pieces of equipment have been placed with the direction of the walls.

Shape harmony in advertising. In advertisements and show-cards all of the big shapes should take the general shape of the enclosing form. In layouts for advertisements and posters it is often necessary to group several small horizontal oblongs to give the effect of a vertical movement to harmonize with a vertical oblong. If circles, triangles, or diamond shapes are used they must be recognized as violent contrasts and used only where an unusual emphasis is desired. Fig. 34 shows how a circle may be related to an oblong by means of transitional lines. The elements in this

illustration were clipped from various advertisements, and pasted together for the purpose of illustrating how dis-

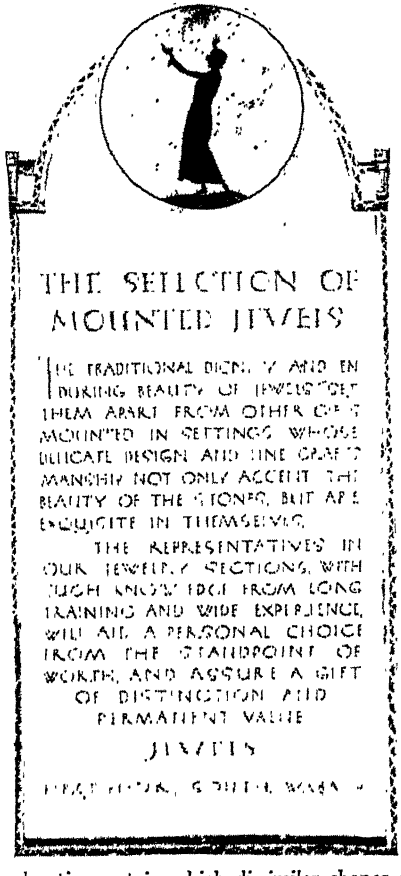


FIG. 34.—An advertisement in which dissimilar shapes are related by transitional lines.

similar shapes could be combined harmoniously. (This explains a certain lack of relationship which exists between the printed matter and the figure in the circle.) Although an advertisement should have a dramatic quality in order to catch the attention, there is danger of going too

far in the attempt to do something unusual, and chaos results. If the designer remembers that there should always

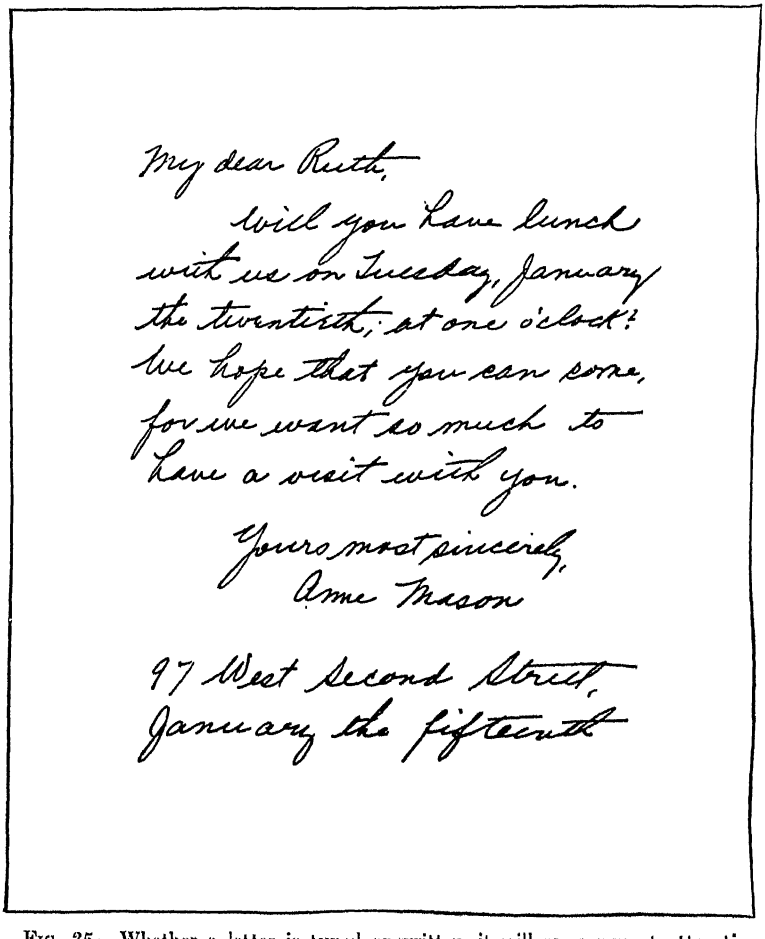
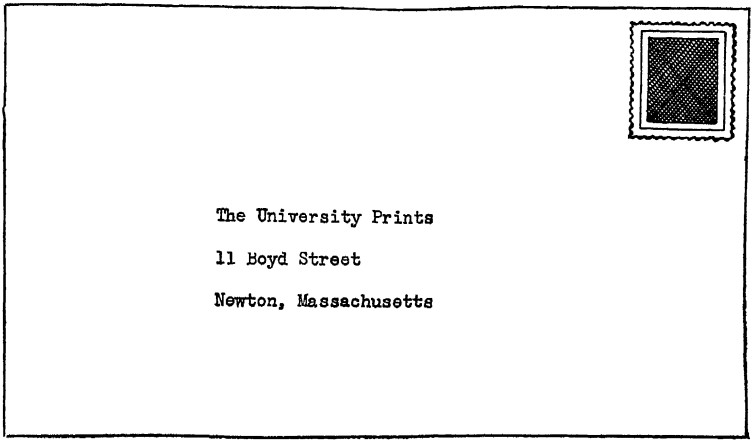
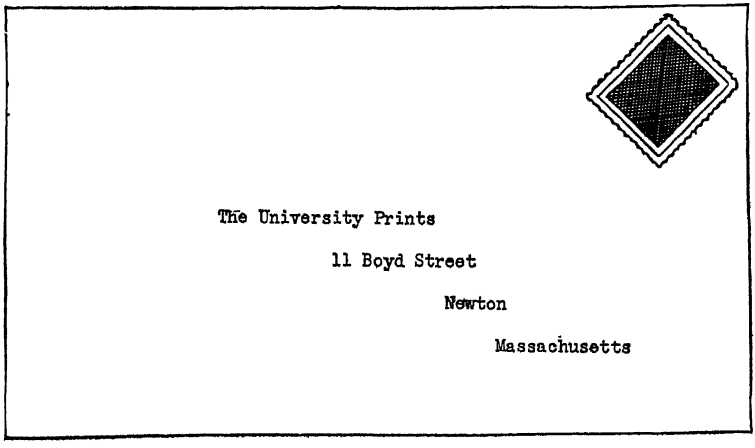

My dear Ruth,
Will you have lunch
with us on Tuesday, January
the twentieth, at one o'clock?
We hope that you can come,
for we want so much to
have a visit with you.
Yours most sincerely,
Anne Mason
97 West Second Street,
January the fifteenth

FIG. 35.—Whether a letter is typed or written, it will appear most attractive if the mass of the writing harmonizes with the shape of the sheet, and if enough plain space is left at the bottom of the sheet to give a pleasant effect of balance.

be a feeling of shape harmony in every layout he will use erratic shapes and lines sparingly, in order that a dramatic rather than a distracting effect may be gained.



A



B

FIG. 36.—*A* and *B*. The addressing and stamping of the envelope *A* shows the application of shape harmony; in *B* there is disregard of the principle of orderly arrangement.

Writing a letter and addressing an envelope. The daily process of writing a letter and addressing an envelope presents a similar art problem. Three art principles are called into use: shape harmony, proportion, and balance. Proportion, that the writing will not be too large for the space it is to occupy; balance, that the block of writing be placed high enough so that it does not appear to be falling off; and shape harmony, which may be secured by beginning each line directly under the line above, and attempting to space the words so that the ends of the lines at the right are as nearly in the same vertical line as possible. (See Fig. 35.) Compare the two envelopes, Figs. 36A and 36B, and it will be readily seen that "A" is the more attractive.

Harmonious or Consistent Sizes. In the chapter on "Proportion" it will be seen that when sizes which are too different are used together they are inconsistent. The aspect of proportion called "scale" is allied to harmony in the sense of "harmonious or consistent sizes," and it is pointed out in the next chapter that the desire for harmony should lead small women to avoid wearing large hats or furs, and should prevent the placing of large vases or lamps on small tables. Since the understanding and the appreciation of the principle of proportion will take care of harmony of size we may go directly to the consideration of harmonious or consistent textures.

Harmony of Textures. The homemaker, the window decorator, and salespeople will be interested in cultivating a sense for harmony in texture. So many schemes just miss being successful because the person who planned them did not recognize that textures which are very coarse have nothing in common with those which are very fine. There is, however, a group of textures which occupies a middle ground, and which may be used with either the coarser or the finer textures. For example, the coarse texture of oak suggests sturdiness, and one may use flax rugs, burlap,

crash, or similar coarse materials with oak furniture; or, working up to the middle group it is possible to use tapestry, rep, coarse velvets with uncut pile, and cretonnes with patterns which are not too fine and dainty. On the other hand, the thin, fine silks, velvets, satins, Chinese embroideries, taffetas, and chintzes with delicate designs are textures which are out of harmony with oak but go well with walnut, mahogany, and enameled furniture, because of the fine, satin-like grain of these woods, and their smooth surface. These fine textures have no relationship to the coarse group, but they have enough in common with the middle group to be introduced when it is desirable to take away from the thinness or the "overdressed" effect which may come with too much fine texture. An example of a poor texture combination sometimes seen in the shops is reed furniture upholstered in brocaded velvet. These textures are entirely unsuited to each other, and are ridiculous to the person who thinks in terms of consistent combinations. A group of well related textures is seen in the brick fireplace and its accessories in Fig. 197. Here the sturdiness of the clock and the texture of the brass appear to have something in common with the texture of the brick. Brick seems to be related to brass, to iron, and to coarse pottery, but not to glass or to other similar fine textures. In dress we sometimes see textures as inharmonious as gold-lace hats worn with coarse wool sweaters, and strings of pearls with rough wool dresses. The gold-lace hat and pearls are related, and are harmonious in texture with such fabrics as satin, velvet, and fine furs. The wool sweater and the wool dress have textures which would be in harmony with each other and with felt, rough straw, or similar textures.

Harmony of Ideas: *Harmony of ideas in exterior design.* It is not enough that sizes, shapes, colors, and textures should have something in common, but there must be harmony in the ideas which are presented together. We see

this in comparing Figs. 37 and 45. In Fig. 45 all the elements seem to be in accord, and they are all suited to the idea of a modest, unpretentious home. The badly designed house in Fig. 37 is completely lacking in harmony. There

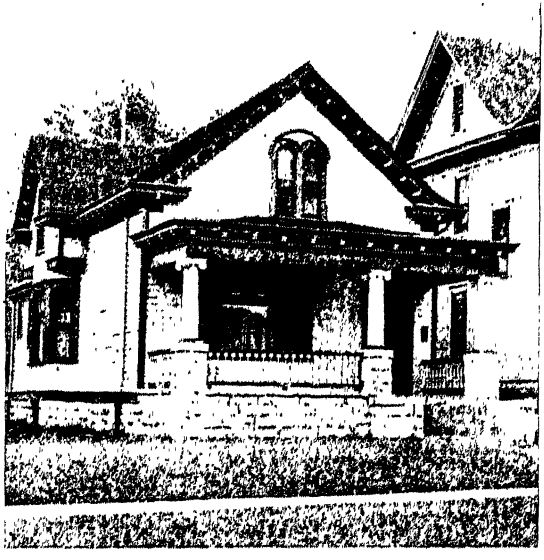


FIG. 37.—There is lack of harmony in the ideas expressed here. The columns are too pretentious to grow out of the crude stone work, and the idea of a classic column seems incongruous with this house. Compare with this the simple dignity of the well-proportioned columns of FIG. 45.

is something imposing about the classic orders, and the grace and beauty of an Ionic column suggests a temple, an art museum, or a beautiful, dignified home in a choice setting. It is certainly not in keeping with a house of this type. The height of the Roman Ionic column, from which this was copied, measures nine and one-half times the diameter of the base of the shaft, including the base and the capital. This one measures four and one-third times the diameter. It is a caricature of a classic column. There is lack of har-

mony in the size of the huge front window and the small house; in the sizes of the big stones, heavy pillars, and upper portion of the porch, and the tiny spindles of the balustrade; in the textures of the rough stones and the finely modeled

FIG. 38.—There is lack of consistency between the two chairs shown here. The brocaded chair is too ornate for the other chair as well as for the spirit of the room.

columns; and in the colors of the rather dark house with its dark trimmings, and the glaring white of the columns. Note the use of the well-proportioned, simple column in Fig. 45. There is little danger of erring on the side of too great simplicity. While an Ionic column requires a formal and stately setting, a column such as this in Fig. 45 is appropriate for either the simplest or the finest dwelling.

Harmony of ideas in house furnishing. Just as all the ele-

ments in the exterior of the house must agree, so must there be harmony in the ideas suggested by the furnishings of the house. The things which might appear well in a mansion would be distinctly out of place in a cottage. Ostentatious period furniture needs elaborate settings, and it is incongruous to try to introduce the Italian or French

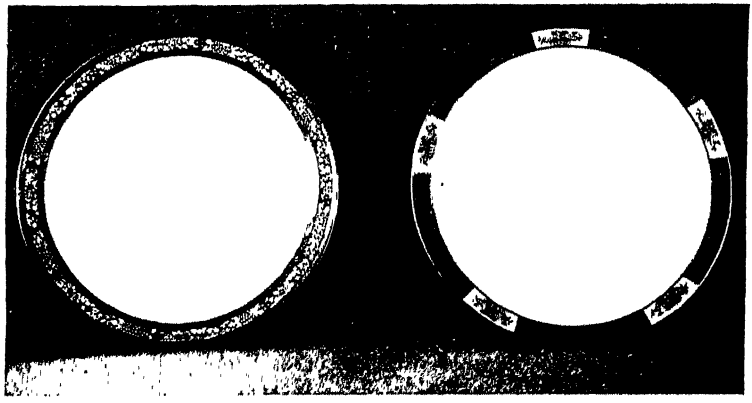


FIG. 39.—(*Courtesy of Lenox Incorporated.*)
Here the flower idea has been adapted to the decoration of china and to the use of a plate.

Renaissance into a small house. The large chair in Fig. 38, with its brocade and fringe, though not by any means so pretentious as much furniture that we see, is a discordant note in the quiet domestic scene indicated by the kettle on the hearth and the cottage chair. Compare this room with Fig. 197. Here there are no misfits and no mismatings; background, books, furniture, and fireplace belong together and to the spirit of the average home.

Harmony of ideas for window designs. A window display of men's shirts and bolts of madras has unity of idea because one easily and with interest follows, in imagination, the process of manufacture. An equally well arranged window displaying men's shirts, kitchen ranges, and picture

frames would be a poor display. A striking example of inconsistent ideas was once seen in a window display of overalls combined with bouquets of roses tied with tulle bows.

Harmony in the treatment of a decorative motif. Another very important application of harmony of ideas appears

FIG. 40.—This design is too naturalistic to be used on china.

in the treatment of the decorations for clothing and for many of the things used in the home. A beautiful bunch of grapes makes a definite appeal when it is seen in a fruit store, but the imitation of it, done with all the accuracy of the skilled craftsman, is positively distasteful when one sees it embroidered on a dress, or painted on a plate to be used for meals; where it stares out from a wall paper with hundreds of companions when we like to have the walls flat and restful, or where it appears on a sofa cushion which we might turn upside down to rest against. The law of harmony of ideas will direct one to conventionalize a bunch of grapes, or any other theme borrowed from nature, before employing it as a feature in weaving, embroidery, or the decoration

of a window or a poster will be lost. If a closely related color scheme seems to lack interest, the introduction of a contrasting value will supply the accent that is needed.

Objects which contrast strongly in value with the background will silhouette, and call sharp attention to their shape. Therefore, objects that are beautiful in shape may be used against a background of very different value. But if an object is not beautiful,—if it is clumsy, or too large, and it is desired to call the least possible amount of attention to its outline, it should be placed against a background which is very nearly its own value.

Since close values produce quiet effects, and strong contrasts have the opposite result, it will be found that where many objects are to be used together, they will appear more harmonious if they are similar in value than if they show sharp contrasts.

Summary of Value. From this discussion on value, the second dimension of color, it will be seen that:

(1) White seems to add color and to increase size because it reflects light.

(2) Black seems to take away color and to reduce size because it absorbs light.

(3) Gray seems to neutralize, and the closer the value of the gray to the value of the color seen against it, the stronger the neutralizing force.

(4) White on black is less conspicuous than black on white because white reflects color while black absorbs it.

(5) Strong value contrasts have a tremendous power of attracting attention; and if not used wisely may produce a very restless and confusing effect.

(6) Close values are restful.

(7) Strong value contrasts call attention to the silhouette of an object.

INTENSITY (SYMBOL I) OR CHROMA (SYMBOL C). *Intensity* or *Chroma* is the dimension which tells the *brightness* or

the leaves and grapes appearing as they would if climbing over a trellis. This violates the rule of correct dress design, that the main lines of the decoration should accord with the main lines of the dress, and the detail be conventionalized. Now regard Fig. 175 in which some form from nature may be assumed as the inspiration of the embroidery, and see how much more effective this treatment is.

It should be understood that it is not necessary to have an association of ideas in order to have harmony. It is possible to carry association of ideas so far that it becomes ridiculous, as when cheese dishes are decorated with cheese and mice; honey jars shaped like bee-hives (with a bee for the handle), and towels and luncheon cloths embroidered with cups and saucers. In fact designs which avoid the suggestion of an obvious relationship are all the better for articles intended for use.

Harmony of Color. Color harmony, the fifth aspect of the subject of harmony, is considered in the chapter on "How To Use Color."

Summary. In order to fix the principle of harmony firmly in mind, it would be well to collect additional illustrations and to make experiments showing consistent shapes, sizes, textures, and ideas.

The tests of harmony which should be applied to all work are:

1. Have the objects themselves anything in common in
   a. Size
   b. Shape
   c. Texture
   d. Idea
   e. Color
2. Are the decorations on these articles suited to
   a. The materials from which they are made
   b. The purpose for which the objects are to be used?
3. Is the decoration more prominent than the object which it

decorates or does it show restraint and refinement, strengthening and beautifying the structure?

4. Have the large masses been placed so that they follow, rather than contradict, the shape which encloses them?

5. Have the smaller masses taken transitional lines rather than contradictory lines?

One becomes so accustomed to the things done and seen constantly that it is much easier to recognize other people's mistakes than one's own. For this reason, it is suggested that the reader at first analyze and criticise, constructively, the things all about him; then, with a sharpened vision, and with definite convictions he will be able to pass sound judgment on his own selections and arrangements.

CHAPTER IV

PROPORTION

Aspects of proportion. Proportion is the "Law of Relationships." There are three practical problems in proportion which confront us in everyday tasks. These are:

(1) How to achieve arrangements which will hold the interest.

(2) How to make the best of given sizes and shapes.

(3) How to judge what sizes may be successfully grouped together.

There are definite means by which to solve these problems:

(*1.*) In order to achieve arrangements which will hold the interest one must know how to create beautiful *space relationships.*

(*2.*) In order to make the best of given sizes and shapes one must be able to produce a *semblance of change in appearance,* if it is desirable.

(*3.*) In order to judge what sizes may be grouped together successfully, it is necessary to grasp the underlying significance of *scale.*

How to hold the interest through space relationships. How long will a row of pickets in a fence or the ticking of a clock hold the interest? Obviously, only an instant. But introduce an element a little bit out of the ordinary, as an unusual gate or the striking of a clock, and one's interest is stimulated. If an arrangement is built on the plan of three squares the mind will record those squares without a pause as it did the pickets on the fence and the eye will not be arrested. But suppose two squares were used with an oblong, or two oblongs with a square, one would have to

look an instant longer before that picture was recorded, and in that instant he would actually perceive that group more clearly than the one composed of three squares. Here then, one is on the heels of an answer to the question of how to arouse the interest.

Every time two or more things are put together proportions are established which must be either good or bad.

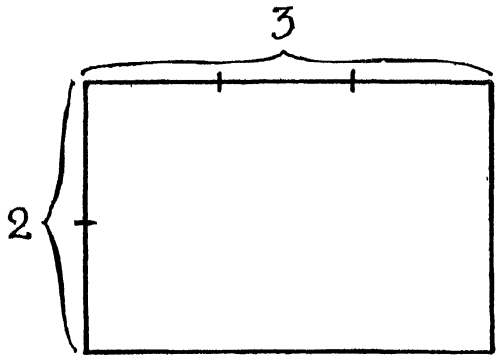


FIG. 42.—The Greek oblong, which is a standard of good proportion. The sides are in the relation of two parts to three.

Some people have an instinct for good proportion and whatever combinations they plan are sure to please the eye, but most people have to acquire this trait; and fortunately it is one that can be acquired. The best method is to adopt a standard, and then by comparing the results of experiments with that standard one will soon arrive at the point of having a true "feeling" for fine space relationships.

The Greek oblong,—the standard for good proportion. The ancient Greeks, after years of beauty worship, arrived at the point where nearly everything they made exhibited good spacing. The oblong which they used as the basis of their space divisions is sometimes called "The Golden Oblong," and it is recognized as the standard for fine space relationships. This Greek oblong measured approximately

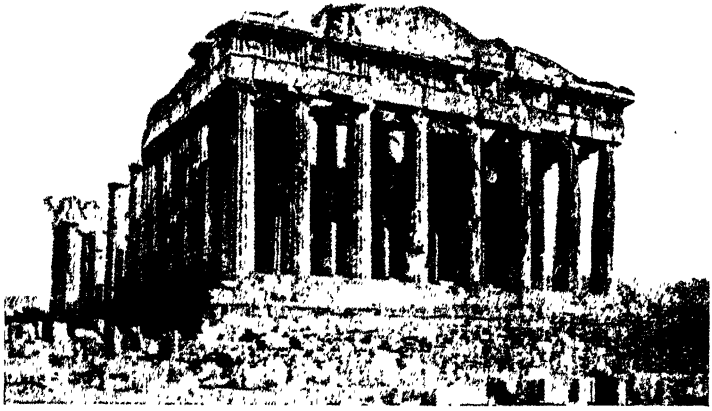


FIG. 43.—(*Courtesy of the University Prints.*)
THE PARTHENON, ATHENS. In the Parthenon all the proportions are based upon the principle that the relationship of about two parts to three, which is not too apparent, is beautiful, and that equal or mechanical sizes are uninteresting.

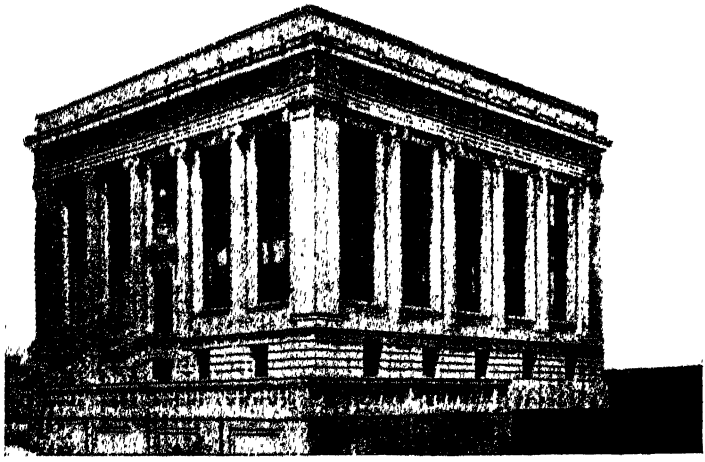


FIG. 44.—A modern building which shows the use of classic forms but not of Greek proportions. Note that the square plan of the front and side walls is less beautiful than the oblongs of the Parthenon.

two units on the short side and three on the long side. (Fig. 42.) It is more beautiful than a square, because the equal sides make a square too obvious to be interesting. The Greek oblong is also more beautiful than a very long,

FIG. 45.—(*Courtesy of Arkansas Soft Pine Bureau.*)
The excellent design of this house is due to its good proportions, which are based upon those of the Greek oblong.

narrow oblong, in which the breadth and the length vary so greatly that they do not seem to be related. A study of the Parthenon, which is the most perfectly proportioned building in the world, illustrates the finest work of the Greeks in planning space relationships. (Fig. 43.) Compare the fine oblong formed by the front of the building with that formed by the side, and note the height in reference to the width of the front. The same beautiful ratio is carried out in the smallest detail of the building. Compare Fig. 44 with the Parthenon, and it will easily be recognized that even though a designer may go to the Greeks for his

details, he does not achieve the height of beauty if he does not also use their proportions. Just as these two buildings show that other things being equal, a square is not so beautiful as a good oblong, so does a comparison of the small

FIG. 46.—The design of this house is based upon the square. Compare it with the oblong plan of FIG. 45, and it will be seen that even though the houses are similar in design this one is much inferior. Beauty depends more upon good proportion than upon architectual details.

houses in Figs. 45 and 46 strengthen the conviction that as a rectangle approaches a square it becomes less pleasing, and that the best results depend on close adherence to Greek proportions. The use of the Greek oblong and of Greek space divisions in the design of the fireplace in Fig. 1 has added beauty and distinction to a simple room. Because of its delightful spacing this fireplace will never cease to give pleasure to its owners.

How to divide a space into two interesting parts. Perhaps no art problem occurs so often (even where one does not

FIG. 47.—*A* would be the most interesting point within this space to place an important object or to divide the space.

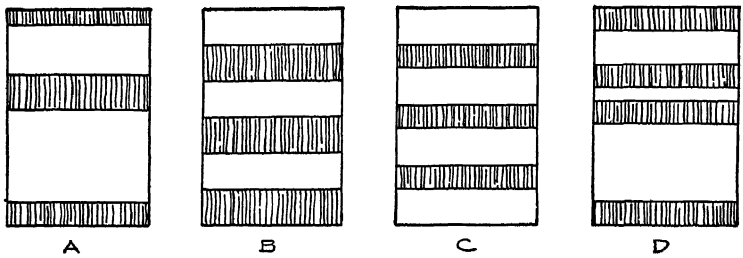


FIG. 48.—Monotony and variety gained through spacing. *A* shows variety throughout. There is no repetition in its lines or in the spaces between them. *B* shows monotony in its repetition because all the lines and spaces are alike. In *C* the spaces differ from the lines, while in *D* the spaces are different from the lines and from each other.

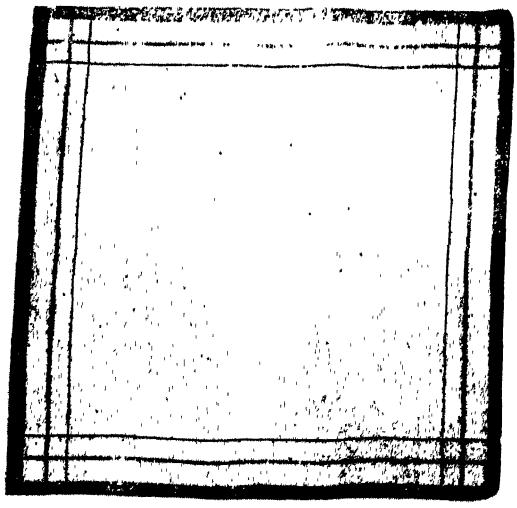


FIG. 49.—The spacing in the border of this handkerchief is of the type diagramed in FIG. 48*A*, where neither lines nor spaces are repeated.

realize that a question of art is involved), as the one in which a space has to be divided into two or more parts. One has to do this when he writes his name on a card, plans the division of a wall space or the parts of a dress, or arranges a group of objects; and in countless other situations the same principle is called into play. If the particular

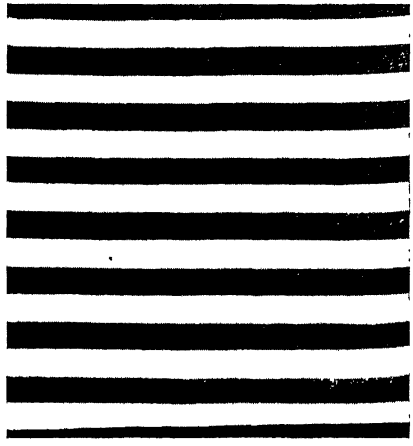


FIG. 50.—As in FIG. 48*B*, this fabric lacks interest because of its monotonous spacing.

division is to be into two parts, the most satisfying result is achieved when the dividing line or object is placed at a point a little more than one-half and a little less than two-thirds the distance from one end or the other. (Fig. 47.) However, this point should not be located mechanically, and these proportions are only approximate. Any position within the limits is potentially pleasing, and there is no necessity for a stereotyped choice.

Dividing a space into more than two interesting parts. Dividing a space into more than two parts by means of lines or objects presents three possibilities:

(1) *All the spaces may differ.* For example, in the diagram, Fig. 48A, and in the handkerchief illustrated in

Fig. 49, all the stripes and the spaces between them are different. This gives the greatest variety obtainable. This type of spacing is excellent for relatively small areas or for a few spaces, but there is a possibility that the effect

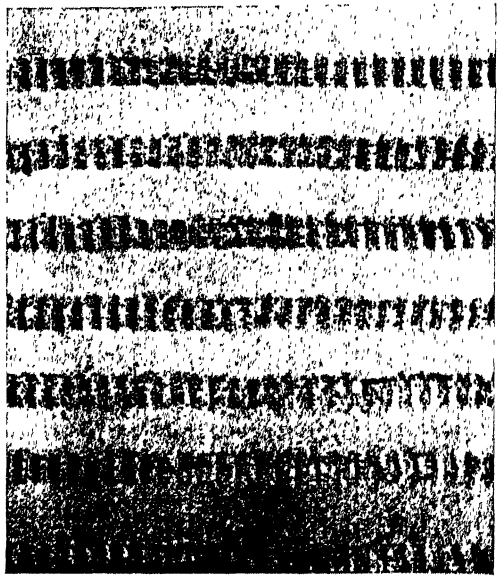


FIG. 51.—The spacing in this fabric shows repetition with some variety, as diagramed in FIG. 48*C*.

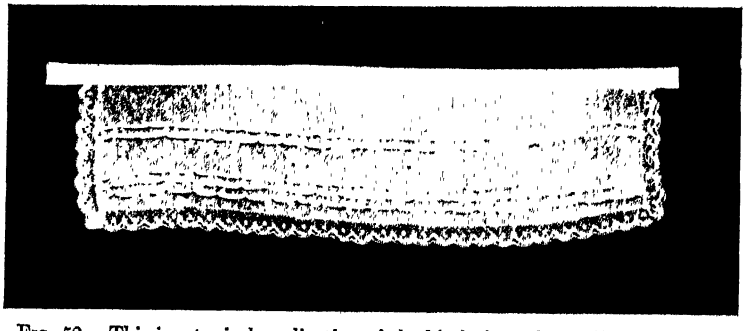
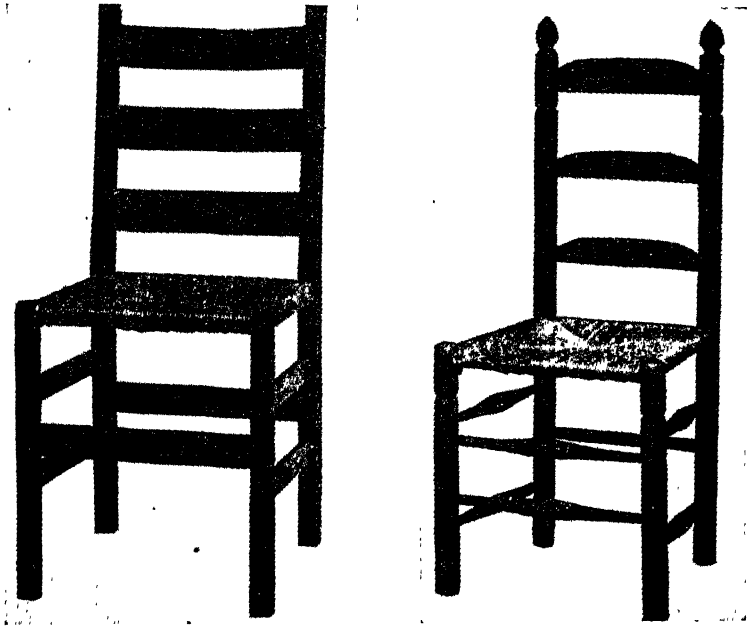


FIG. 52.—This is a typical application of the kind of spacing in FIG. 48*D*. The repetition of the tucks gives unity, while the difference in the spaces between lends variety.

may appear confused and inharmonious if a great many of these divisions must be seen and compared at one time.

(2) *All the spaces may be alike.* In Fig. 48B, and in the black and white material in Fig. 50 every stripe is the same width, and the spaces between them are the same



A *B*

FIG. 53.—The worth of an object does not depend entirely upon richness of material. One would very soon tire of the chair *A* with the monotonous proportions, even though it were of a finer wood than *B*, in which the parts are beautifully adjusted.

width as the stripes. This kind of repetition makes for monotony.

(3) *There may be a variation in some of the spaces and repetition in others.* In Fig. 48C, and in the gray material in Fig. 51 a stripe is repeated at intervals alternating with a space from which it differs in width. In Fig. 48D, and in the collar, Fig. 52, the tucks, which are the mark of

division in this example, are alike in width and the spaces between them vary. The converse of this arrangement would be seen if tucks of varying width were interspersed with identical spaces. C and D achieve harmony through the repetition of the same unit, but without sacrificing the agreeable element of variation.

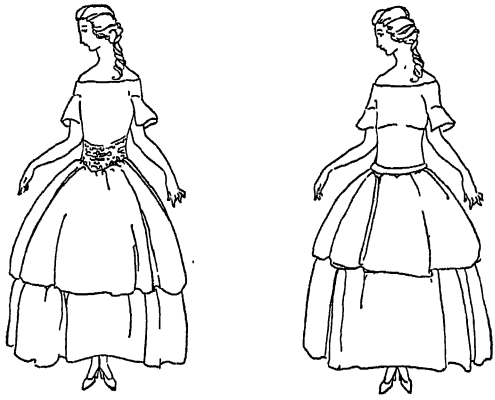


FIG. 54.—COSTUME OF 1850. Equal divisions in a dress give a commonplace effect, while the variety which results from following Greek proportions lends interest.

Additional examples of these types of space division are found in Fig. 53, where the chairs show the same general type of space division as we have observed in illustrations B and C, and in the dresses shown in Fig. 54. In Fig. 43, a picture of the Parthenon, the columns will be found narrower than the spaces between them, producing an effect of far greater beauty than if they were equal, because it is more subtle. Fig. 48C recalls the columns of the Parthenon in the arrangement of stripes and spaces.

In the arrangement of a shelf one usually finds variety in the objects to be distributed, and the aim is to arrange them so that the effect is orderly, and that the spaces between the objects are interesting. The height of the objects, too, becomes a factor to be considered. For instance, Fig. 55 is commonplace because of the equal spaces between the

ends of the mantel and the candlesticks, and the candlesticks and the picture. In addition to this, the candles and and the picture are the same height. Raising the picture and moving the candlesticks produces an immediate improvement, while the introduction of the two small groups contributes an added interest by breaking the line still more. (Fig. 56.)

Frequently one has to arrange groups of objects within a larger group. Perhaps it is desired to group rows of lace insertion or tucks within a given space; to place buttons on a dress; or it may be that an embroiderer wishes to repeat an interesting unit or spot at unequal intervals on a band or a collar. Whatever the nature of the problem, the general rule applies that if single elements in a group or structure are to be viewed as units, they may be separated by spaces wider than the unit measure; but if objects are to be seen as a group, the spaces between the objects should be smaller than the size of the objects. If this group is to be related to another one near it, the space between the two groups should be smaller than the space occupied by either group. (See Fig. 57.)

Odd numbers are more interesting than even numbers, and three objects grouped with three, or two objects grouped with three make a more satisfying arrangement than two and two, or two and four, or any combination involving even numbers. The arrangement of the tucks in the collar in Fig. 52 also follows this plan, and a study of this example will show how easy it is to augment interest through this simple method of grouping.

Lines which apparently alter proportions. Fig. 58 shows two rectangles of exactly the same size. In one a horizontal line has been drawn, and in the other a vertical line. Where the eye is carried across the rectangle it looks shorter and wider, and where it is carried up and down the effect is that of apparently increasing the height and decreasing the

width. It is often said that horizontal lines add width, and vertical lines add height. While this is true, a second effect may be produced which must also be taken into account. Vertical lines can be so arranged that they will

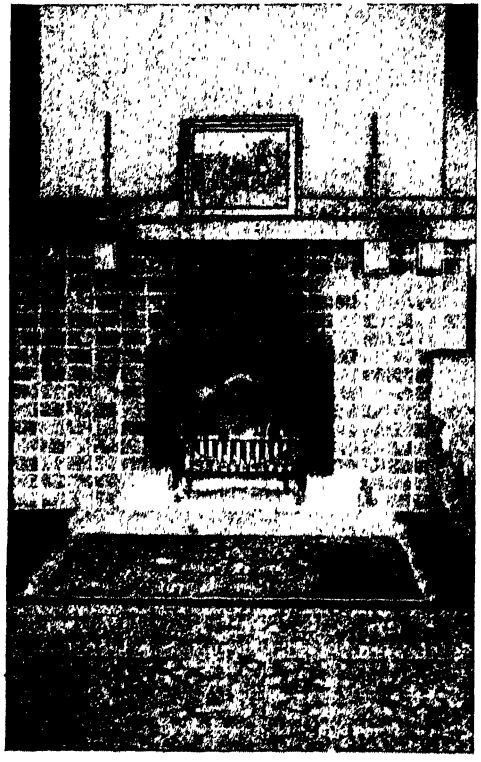


FIG. 55.—This arrangement is monotonous because the proportions are poor. The heights of the objects on the mantel are alike, and the candlesticks are so placed that they divide the background into equal spaces.

carry the eye from one line to the next, and while they still add height to an object they will also add width. This is seen in the central figure of Fig. 65. Let us therefore confine ourselves to the statement that a *vertical movement* makes an object look taller and more slender, and a *horizontal*

movement has the opposite effect. An illustration is seen in the buildings in Figs. 59 and 60. Although the proportions of the Palais de Justice and the Palazzo Isolani are practically the same, the Palais de Justice appears

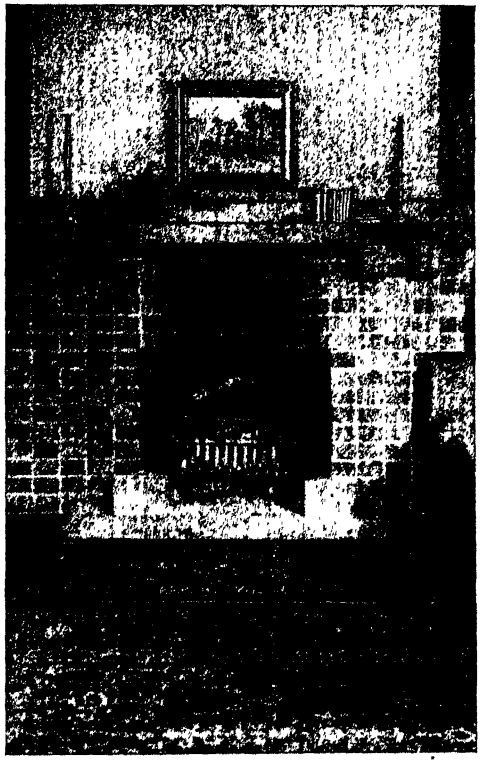


FIG. 56.—This is more interesting than FIG. 55 because the heights of the objects and the spaces between them show more varied proportions.

to be the higher building. This is because all the lines draw the eye upward, while the lines and the repetition of arches in the other building carry the eye horizontally. Thus it is seen that if for the sake of economy one plans a house which approaches a square, it is possible in a measure

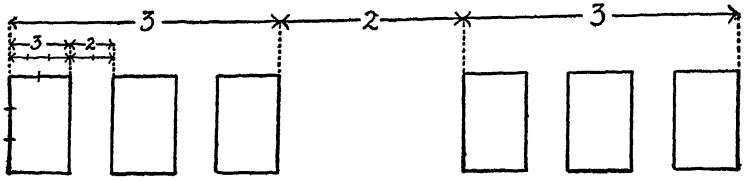


FIG. 57.—This shows a plan which may be followed in arranging objects so that they will group well. Think of each one of these blocks as a picture, a button, or a bolt of goods—in fact, anything which you wish to arrange in a group. Each group is seen as a unit because there is less space between the objects than the width of the object. The two groups are easily seen together because there is less space between them than the area of each group. Note that all spaces follow Greek proportions.

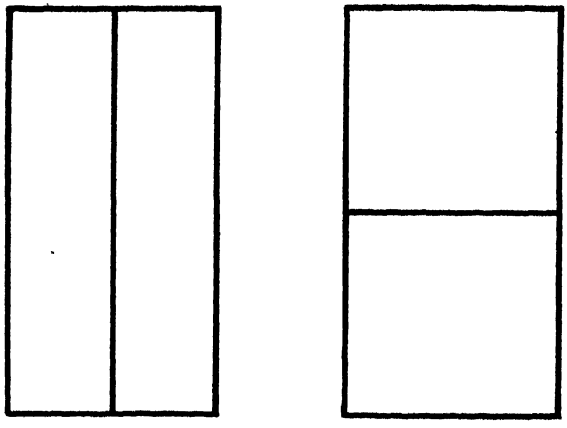


FIG. 58.—Two oblongs of the same size showing that when the eye is carried up and down, the height seems increased and the width decreased, while carrying the eye across has the tendency to add width and decrease height.

to overcome the disadvantages of this plan by the shape and the arrangement of the openings. (Figs. 61 and 62.) In Fig. 61, where the windows and porch are themselves nearly squares, monotony results from the emphasis laid upon this aspect of the house. Compare with this Fig. 62, where a horizontal effect has been created by the grouping of the windows, and variety achieved through the delightful proportions of the doorway.

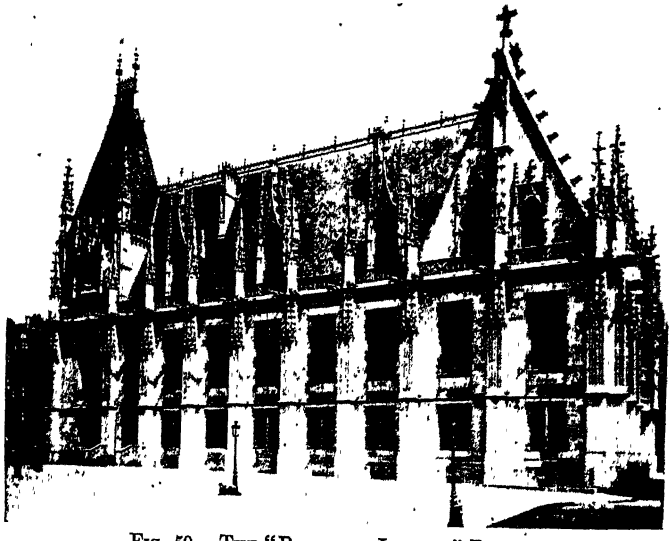


FIG. 59.—THE "PALAIS DE JUSTICE," ROUEN.

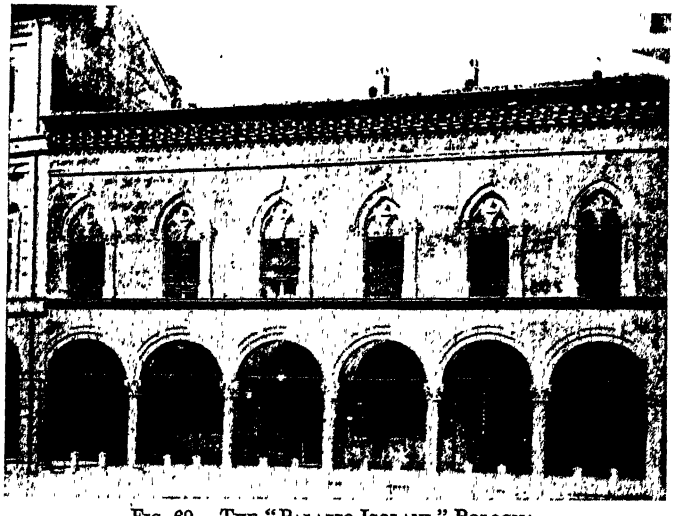


FIG. 60.—THE "PALAZZO ISOLANI," BOLOGNA.

These two buildings have approximately the same proportions, but the lines of 59 carry the eye upward and make the building appear higher than 60, where the leading lines carry the eye across.

The effect of lines upon the appearance of a room. When it is understood that the correct use of lines may thus apparently alter proportions, countless puzzling problems will be solved. The room which is too low may have panels

FIG. 61.—A house which appears to be made up of several squares is uninteresting.

or a suggestion of stripe in the paper; windows too short will have long, narrow draperies and no valance; the chair which is too "squat" may have a vertically striped cover (but remember not to choose stripes that will carry the eye across rather than up and down). The placing of pictures and accessories may be used to emphasize height or width in a room. This is seen in Fig. 225 where the vertical hanging produces an impression of height. In Fig. 214 the objects are placed to carry the eye from one end of the bookcase to the other, and seem to increase its length. A few more examples of typical problems are illustrated in the following rooms. In Fig. 198 a high room has apparently been made

lower by having carried the color of the ceiling down to the tops of the windows; by the use of short window draperies with a valance; by low book shelves; and by the suggestion of a horizontal decoration in the lines and the arrangement of

FIG. 62.—(*Forsythe and Jones, Architects.*)
Actual measurements show this house to be more nearly square than FIG. 61, but the windows have been so successfully grouped that there is a distinctly horizontal movement, making it appear more nearly an oblong. Note the well scaled details in this house.

all the furnishings. In Fig. 205 a room which is unusually long has apparently been shortened through the placing of important groups of furniture at the central axis. The use of more than one rug also appears to decrease the size of the room. In Fig. 23 it was desired to increase the apparent width of the room, and so a valance was put across the group of windows, and two rugs were placed so that their lines carry the eye across the narrow dimension of the room. In Fig. 258 a low room has gained apparent

height through the use of the striped wall paper and the arrangement of the furniture and decorative objects, which are so grouped that the eye is carried toward the ceiling.

The effect of lines upon the appearance of the individual. A stout woman should avoid horizontal movement in the

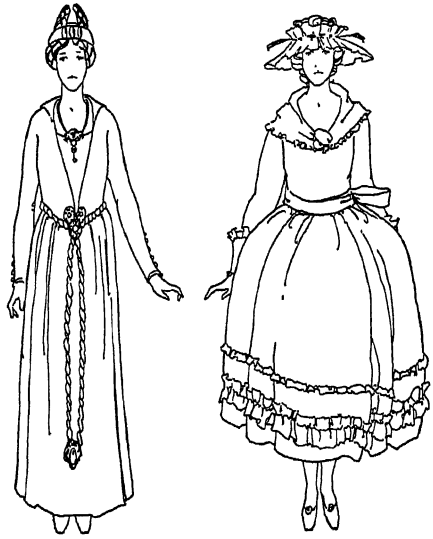


FIG. 63.—Observe that the tall thin woman looks painfully elongated in this mediæval dress with its vertical movement, whereas she becomes plump in the Louis XVI costume. The broad hat shortens the oval of her head, and the full skirt builds out her figure.

lines of her hats and dresses, seeking to direct the eye up and down the center of her figure, rather than across it. (Fig. 64.) That the buyers and even dress designers do not always recognize this important principle is seen in the reproduction of a newspaper advertisement of garments especially designed for stout women. (Fig. 65.) Broad collars, separate waists and skirts, wide yokes on skirts, conspicuous sashes, stripes which carry the eye from side

to side, and short overskirts, all tend to add width, and are the very things stout women should avoid wearing. It is said that the stout woman should wear panels, but the width of the panel is seldom mentioned. That this is an important omission appears plainly in the diagram in Fig. 66.

The salesman who understands how to use lines to alter

FIG. 64.—Here is a large woman wearing a hat and dress which make her appear much larger than she is. The indicated changes in her costume seem immediately to reduce her to agreeable proportions.

proportions will not advise a short fat man to buy a wide-brimmed straw hat, nor will he recommend a bow tie for one with a broad face. A long thin face in either man or woman needs the softening shadow and the cross line of the hat with a brim. A woman any of whose proportions vary from the normal will select dresses with lines designed to direct the eye away from the unusual feature, and she may still further conceal her defect by building out some

other part of her dress. For example, if the bust is too large, instead of compressing the waist and simply calling attention to the unusual size, as many women do, she should build out the waist and hips and employ in her costume lines that carry the eye up and down the center of the figure. If the hips are conspicuous the waist and shoulders may be built

FIG. 65.—This is an accurate tracing of an advertisement clipped from a daily paper. (The original was labeled "From our special Stout Department.") Broad collars, deep yokes, a double sash of contrasting color, as well as conspicuous stripes that carry the eye across rather than up and down the figure, prove that specialists need to be close students of the principle of proportion.

out. If the shoulders are too square it is unwise to accentuate them with yokes or square collars. It is clear from these instances that one has the power apparently to change sizes and shapes if he understands the correct use of line, and thus this knowledge becomes one of the most valuable tools in a person's equipment.

Definition of scale. One of the terms which is used very frequently is "scale." One says, "This building is excellent.

All its parts are in scale." Or, "How well scaled this table is." *Scale, in this sense, means that the proportions of all the elements that have gone into that structure have a consistent, pleasing relationship to the structure and to each other.* A very small object never looks so small as when it is placed near something which is very large. That is because the two sizes are not consistent. They accentuate each other by contrast, and would be said to be "out of scale."

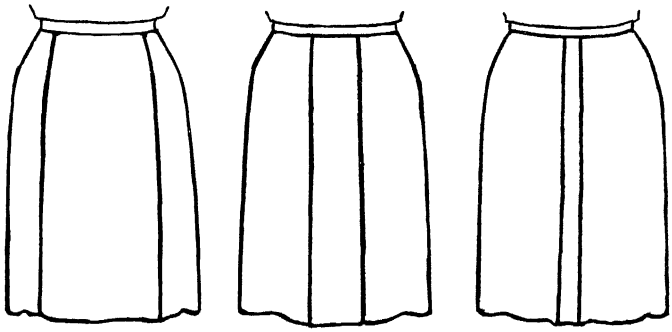


FIG. 66.—These three drawings show the effect of panels of various width on a stout figure. *A*. When a panel is very wide the eye is led across the figure as well as up and down. *C*. When the panel is too narrow attention is called by contrast to the unusual expanse at either side. *B*. The effect of height and slenderness is obtained only when the panel is of moderate size and well proportioned.

Scale in exteriors. It is very largely because all of the parts of the house in Fig. 62 are in scale that it is so successful. Compare it with Fig. 67 and it will be seen that when the scale is bad a house is not a unit, but a jumble of parts. Whenever a dormer, a window, or a porch is too large or too small it will attract undue attention, and destroy the effect of unity that might be produced by the house. In this case all three,—dormer, columns, and the large windows,—are out of scale with the size of the building. In Fig. 62 the rather slender columns have been used in pairs

in order that the supports might be in scale with the house Window openings of even ordinary size are apt to appear large for the average house and this is particularly so if the windows are made with large panes of glass. However, the windows may be brought into scale if small panes are

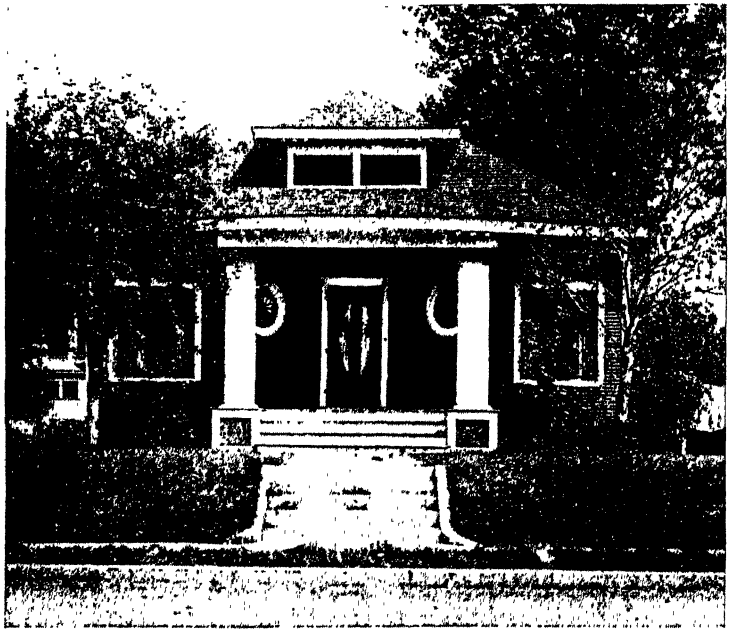


FIG. 67.—Here the columns, dormer, and big windows are strikingly out of scale with the little house. There is also a lack of shape harmony in the door and small windows, and the conspicuous squares at the ends of the steps. Compare this with the delightfully scaled house in FIG. 62.

used, for then it is the small pane which is recorded on the mind as the unit of measurement, and not the entire opening. Small panes, in addition to being in better scale with this house, give it charm and a sense of privacy.

Scale in house furnishing. The person who would select and arrange things that will look well together must develop a feeling for scale. He must know, for example, that

two very large chairs and a big divan would seem to crowd a room twelve feet by sixteen which would hold a number of smaller pieces quite satisfactorily. (Fig. 68.) If large pieces must be used in a small room, there should be the fewest possible number of them, upholstered in an incon-

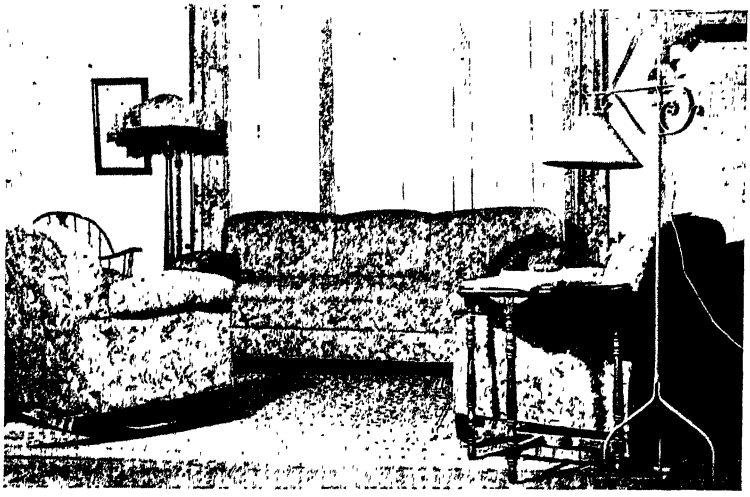


FIG. 68.—This overstuffed furniture is so large that the 12′ x 16′ room appears crowded. The use of a set of three pieces has given to the room a monotonous, commonplace appearance. Compare with this the harmonious variety and the scale of the furniture in FIG. 12.

spicuous color and pattern. If the furniture seems too small for the room, it should be arranged in groups, so that the size of the group, and not the size of each piece, may become the unit for comparison. The maximum appearance of size may be given to a room through the use of furnishings which are small in scale. (See Fig. 1.)

Scale is judged not only by the size of the whole mass of an object, but also by the relationship of each part to every other part, and to the whole mass. Two chairs of the same outside dimensions will appear different in scale

if the arms and legs of one are very heavy, and of the other very light.

There is a mistaken idea that furniture, to be comfortable, must be huge. This is unfortunate, because it has led people who live in average-sized rooms to crowd them with

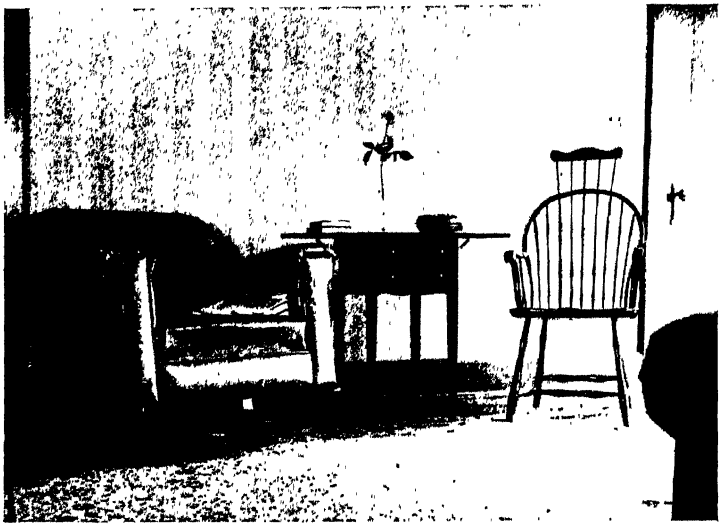


FIG. 69.—This is a striking example of a badly scaled group of furniture. The enormous leather chair dwarfs the other things in the room.

bulky pieces. If they only knew that comfort is more a matter of the construction of the piece than of its size, and that equal comfort can be obtained with smaller pieces, our small houses and apartments would show much better scale, and would be more attractive. The big rocking chair in Fig. 69 illustrates this common mistake. It is so much out of scale with the Windsor chair, the table, and the vase with its flower that it looks elephantine. In passing, it should be noted that large size in a chair suggests stability and is inappropriate in rocking chairs. Now study Fig. 12. Here the pieces are well proportioned and go together

beautifully. The overstuffed chair is large enough for comfort, but not so large as to dominate the room.

Fabrics, too, have scale. Under the topic of "Harmony in Textures" fabrics were grouped in three classes: coarse materials, which suggest large scale; fine textures, which suggest small scale; and third, an intermediate group, which may be used with either of the first two groups as well as with objects of an intermediate scale. Fabrics show scale in pattern as well as in texture. Large figures are suitable for large pieces of furniture to be used in large rooms, and small patterns are consistent with small pieces for use in small or average rooms.

Scale in dress. Violation of scale in dress results in ungainly effects, and often culminates in the ridiculous. For example, who has not seen the tall, stout woman who insists on wearing a very small hat with a dainty butterfly or tiny "stick-up" for its trimming note; or who glories in dresses trimmed with little tassels or a few very small buttons or narrow pipings of contrasting color, and who invariably carries a diminutive handbag? Of course there is danger that, on being shown her error, this woman might go to the opposite extreme and select patterns and accessories that are too large. Since large patterns and objects are conspicuous, they would be equally unsuitable and would again draw attention to her size. On the other hand, the small woman should avoid large designs because they would be "out of scale" with her size.

Summary. It would be possible to enumerate countless additional applications of the principle of proportion, but all that is necessary for the solution of problems under this head is the thorough comprehension of:

(1) The method of obtaining beautiful spaces.

(2) The procedure by which it is possible to give the appearance of changing sizes and shapes.

(3) The proper use of scale, or consistent sizes.

The simplest as well as the most elaborate selections and arrangements will gain interest through the use of good proportion.

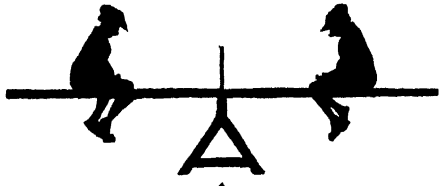
CHAPTER V

BALANCE

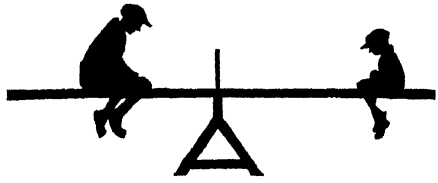
People unconsciously demand the application of certain elementary principles in the arrangements which surround them in daily life. These principles are so simple that when they are complied with one is not even aware of the source of one's satisfaction. On the other hand, the violation of these simple principles will give rise to a feeling of disappointment which is none the less actual for being, sometimes, quite undefinable. When one steps into a room with most of the furniture at one end the room seems to tip, and one longs to rearrange the furniture. One does not enjoy watching a woman in the street if she is wearing a wide hat and large furs, with a short tight skirt and French heels; she looks so top-heavy that it seems as if the next gust of wind would blow her over. One is uneasy upon seeing a large bouquet of flowers in a vase with a very small base, for the balance which the eye desires is missing.

Definition of balance. The success of every design depends in a measure on correct balance; and, stated briefly, *balance is rest or repose.* This restful effect is obtained by grouping shapes and colors around a center in such a way that there will be equal attractions on each side of that center.

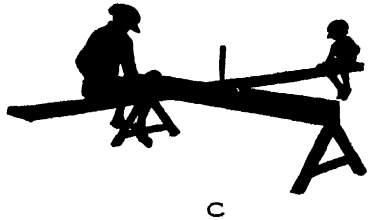
How to balance objects. The youngest school boy can balance objects if he is told that balance works on the same principle as the see-saw. Equal weights will balance when they are the same distance from the center. If unequal, the heavier weight must be moved toward the center and the lighter weight away from it before balance is obtained. (See Figs. 70A, B and C.) Balance in art can be explained quite



A



B



C

FIG. 70.—THE PRINCIPLE OF THE SEE-SAW APPLIED TO BALANCE IN ART. *A*. Equal weights or attractions balance each other at the same distance from the center. This kind of balance in art is called formal or bisymmetric balance. *B*. Unequal weights or attractions balance each other at different distances from the center. The stronger the chief attraction is the nearer it must come toward the center, and the weaker the other the farther away it will go. If one object is half as big or half as attractive as the other it will be placed twice as far from the center. This is called informal or occult balance. *C*. Another method of balancing large objects with smaller objects, besides the one shown in *B*, where both are placed upon the same horizontal line, is illustrated in *C*. Here the large object comes toward the foreground, and is balanced by placing the smaller one in the background. In other words, it gives the effect of being seen in perspective. This method of balancing is used especially in pictorial composition, in designing store windows, and in arranging stage settings.

as simply as balance in weights. The only difference is that it is not so much a question of how much the objects weigh as how much attention they attract If one boy wore a gray sweater and another wore red, in balancing them against a background one would follow the same principle as for balancing unequal weights, and would place the boy in red nearer the center of the wall, while the less conspicuous boy would be moved farther away. The brighter that red sweater the nearer it would have to come toward the center line, and the duller the grey sweater the farther off it should go.

FORMAL AND INFORMAL BALANCE. There are these two types of arrangement into which balance may be introduced:

(1) When the objects are exactly alike and have, therefore, the same power of attracting the attention.

(2) When they differ in size, shape, or color, or, in other words, are different in their ability to attract attention.

This first kind of balance is known as FORMAL BALANCE, and it is usually bisymmetrical The second is called INFORMAL or OCCULT BALANCE, and this is unsymmetrical.

Formal balance is much easier to use because it can actually be measured, while the successful use of informal balance depends upon training the eye to recognize restful arrangement.

Objects must balance around a center. It will be seen that the center of the space under consideration is the point around which all attractions must be adjusted. If objects are of the same size, and alike in appearance, they will attract the same amount of attention and therefore should be placed equally distant from the center. This type of balance (the formal) is quiet, dignified, and impressive, but quite mechanical. On the other hand, informal balance is more subtle, and affords greater opportunity for imaginative arrangements.

Balance in pictorial composition. Pinturicchio's "Music" is an illustration of a formal arrangement in which the figures on either side of the center line are so nearly alike that they

FIG. 71.—Formal Balance. "MUSIC" BY PINTURICCHIO. (*Courtesy of Anderson, Rome.*)

When a painter desires a stately, dignified effect in his picture he is apt to use formal balance, or the principle of FIG. 70 *A*, where equal attractions appear on each side of the center.

attract the same amount of attention. The lights and darks have been repeated in practically the same relative positions, and the figures have been balanced so skillfully that, even though both sides are not exactly alike, one has the impression of symmetry. (Fig. 71.) In Puvis de Chavannes'

FIG. 72.—Informal Balance. "SAINT GENEVIEVE WATCHING OVER PARIS," BY PUVIS DE CHAVANNES.

A very skilfully balanced group of objects which are unequal in their power to attract attention. The large mass of light consisting of the figure and house is balanced by the moon and its reflection off in the distance, as in FIG. 70 *C*, and by the jar of flowers on the floor placed as the small boy in FIG. 70 *B*. Removing or changing any of these spots destroys the equilibrium of the picture. Note how objects placed near the boundaries attract more attention than those near the center.

"Saint Genevieve" we find an instance of informal balance so perfect that its restfulness is the first thing the observer feels. (Fig. 72.) Cover the moon and its reflections and

FIG. 73.—A bisymmetric design adapted by the Persians from the pomegranate.

note how this sensation of rest is disturbed. Most of the weight is now in the right half of the picture and to restore the balance one needs just those little isolated spots. Remember the small boy on the long end of the board in Fig.

FIG. 74.—A modern bisymmetric design for embroidery.

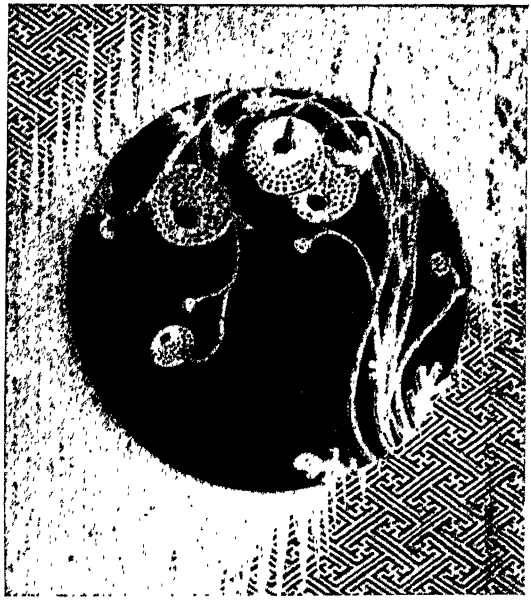


FIG. 75.—A Japanese stencil, showing a delightful use of informal or occult balance.

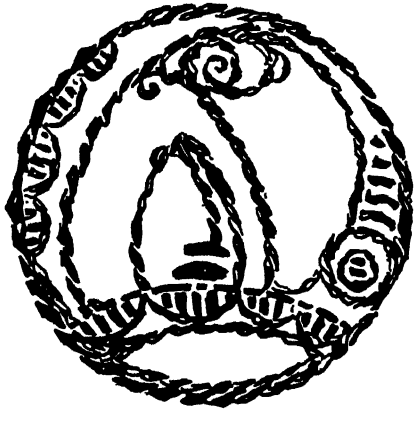


FIG. 76.—Occult or informal balance. This is an unsymmetrical adaptation of the embroidery design in FIG. 74.

70C. The jar of flowers on the floor corresponds to the small boy in Fig. 70B, and one sees how the moon and the vase have gained importance by being placed so far from the center line.

Formal and informal balance in decorative design. The earlier

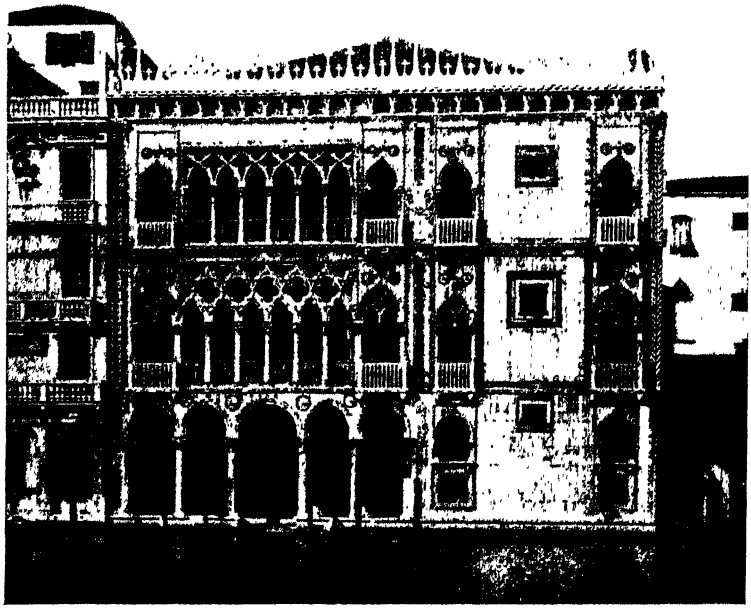


FIG. 77.—CA D'ORO, VENICE. A suggestion of the gaiety of the life of the Venetians is expressed in the informally balanced design of this Gothic palace.

art periods produce more formal expressions than the modern periods, and numerous examples of bisymmetric balance are found in their designs. The pomegranate design which is shown in Fig. 73 is attributed to the Persians, and this motif has been adapted to formal design in many periods. Because of its stateliness it was often used in the rich fabrics that upholstered the chairs of the Renaissance. Much

of the impressiveness of this design is due to symmetry. Compare with it the modern embroidery design derived from it. (Fig. 74.) In this example the detail is much less complicated, but there remains something of the formality of the first design.

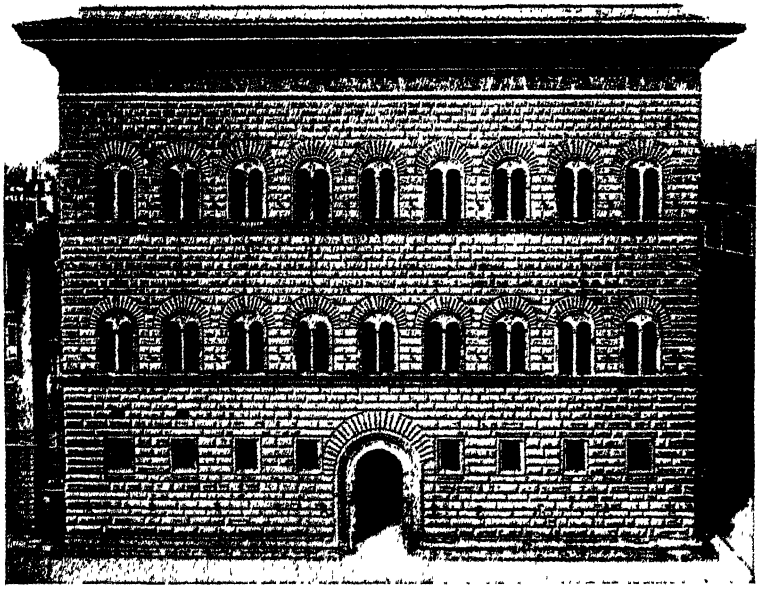


FIG. 78.—PALAZZO STROZZI, FLORENCE. Bisymmetric balance seems especially adapted to the social and political life of the Florentines during the Renaissance period.

The characteristic designs of the classic periods are formal, whereas the art of Japan is informal. The Japanese are masters of the subtle art of occult balance, and they have acquired such expertness that their flower arrangements, prints, and stencils are remarkable for their subtlety and spontaneity. One of their typical designs is seen in the stencil pattern in Fig. 75. Here is a perfect adjustment of unequal

spots on either side of the center line. The exquisite grace of the lines combined with the subtle balance of forms stimulate the imagination of the person who looks at it. (Other examples of the Japanese use of informal balance are seen in the print over the chest of drawers in Fig. 94 and in Fig. 246.) Fig. 76 shows a more conventionalized design

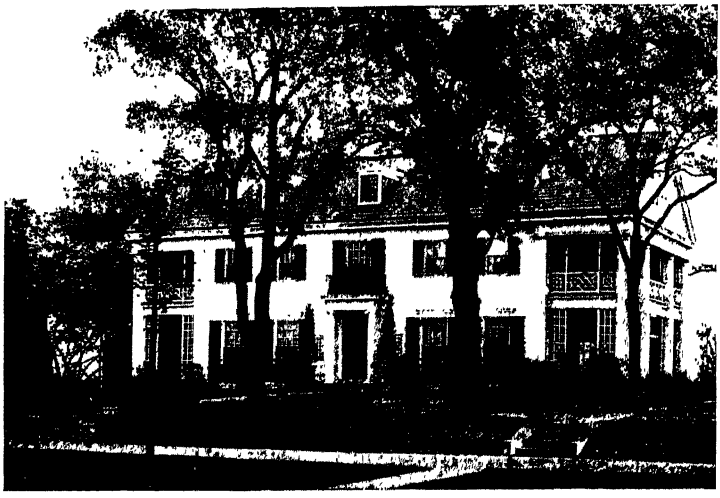


FIG. 79.—The use of bisymmetric balance in this house has established a keynote of reserve. The design has gained distinction through its simplicity and its beautiful proportions.

than this Japanese stencil. It is a simple example of informal balance which the person who embroiders is likely to design. Here are details which are similar to those in Fig. 74, but they are balanced informally.

Balance in exterior design. The architect has to balance doors and windows, porches and dormers around the central axis of a building just as the painter arranges his composition on canvas. Whether he chooses to use formal or informal balance depends very largely upon the following conditions:

(1) His own personality.
(2) The spirit of the age in which he lives.

(3) The use to which the building is to be put.
(4) The type of people for whom the building is planned.

In glancing back over the historic periods, one sees that in the days which were filled with a spirit of romance, everything which was done was expressive. In the golden days of Venice, the bright fantasy of the times was echoed in the

FIG. 80.—This house is balanced informally. Note that the large wing, placed near the center of the house, is balanced by the small wing placed farther away.

charming, unbisymmetric designs of many of the Venetian palaces. (Fig. 77.) In Florence, art found a very different expression; the seriousness of the Florentines in the early Renaissance period, so vividly reflected in the work of Michelangelo, is seen in their stately, unadorned, bisymmetric palaces, the natural outcome of their lives and thoughts. (Fig. 78.) In the same way the spirit of Puritanism led to restrained, formal designs in the buildings which were erected in the American Colonial times; in their large public buildings and in their small dwellings as well, the Colonists put their own personalities into their work. Two houses are shown here to illustrate how the architect secures these two kinds of balance in a building. In com-

paring them, notice their difference in spirit as well as the mechanical means by which this effect was secured. If a

FIG. 81.—(*Courtesy of Mr. C. E. Lawrence.*)
A balance of equal and unequal attractions in an advertisement. The upper two-thirds is formally balanced, while the lower third shows unequal attractions which balance because of the manner of grouping. The strong dark of the curtains and the striking shapes of the rug and chair at the right balance the sum of the two cuts on the left. Together they are somewhat less forceful than the cut at the right, but the bolt of material leads the eye in that direction a little more strongly than it carries the other way, and so there is a feeling of rest.

line were drawn through the center of the house in Fig. 79 it would be found that everything on one side is repeated on the other side, and so this house is "bisymmetric," and it is formally balanced. Fig. 80 is informally balanced,

and the architect obtained a feeling of restfulness by carrying out the principle illustrated by the large and small boy on the see-saw. The larger wing, which extends to the center of the house is balanced by the smaller wing farther out.

Balance in advertising. In the advertisements in the papers

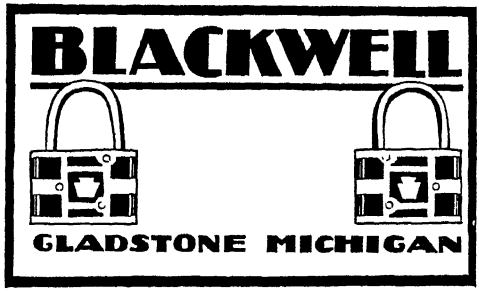


FIG. 82.—In advertising materials which are distinctly practical the sturdiness of formal balance seems especially appropriate, while the grace of the occult balance is well suited to objects which have fine texture.

and magazines, the principle of equal and unequal weights as related to balance is kept in mind. The men who prepare the copy do not place all of the heavy type headings and dark cuts in one section; they try for balance by shifting the darker parts and combining with them the lighter cuts and types faces. The advertisement in Fig. 81 shows a combination of formal and informal groups, while the whole effect is of formal balance. The upper part is formally

balanced around the center line, while the lower part shows how the strong dark of the curtains and the striking shapes of rug and chair balance the larger but less conspicuous mass on the left containing the two illustrations and most of the bolt of material.

In the two car cards in Fig. 82 the severity of formal balance has been chosen for the hardware advertisement,

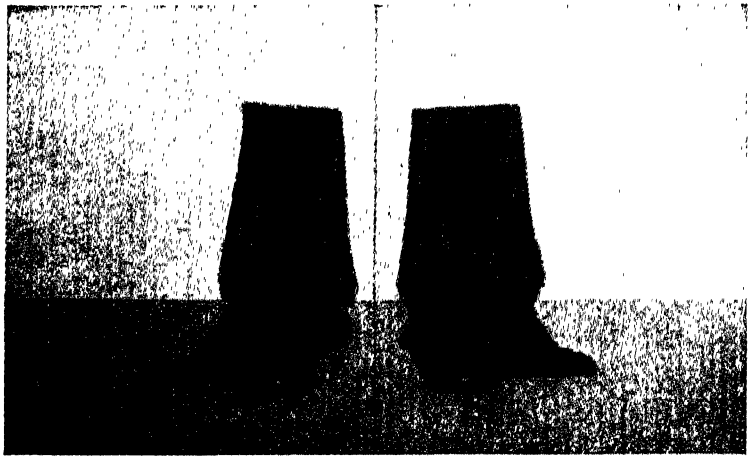


FIG. 83.—Formal balance which is symmetrical. Since the forms are exactly alike they will balance at any points equally distant from the center. Because it was desired to have the effect of a group the space between is less than the width of the objects.

while the greater grace and subtlety which come with informal balance seemed better suited to the idea of Japanese wares.

How to develop a sense of balance. A very simple method of training one's own sense of balance is suggested by the illustrations in Figs. 83, 84, 85, 86, 87, and 88. For these exercises pictures of window displays were used, and the objects were cut out, but it is obvious that the same problems may be worked out with groups of furniture, pictures, and other objects placed against a wall. Here several pieces of

paper were cut to represent the floor and the background of a window which would be large enough to hold these objects. A light guide line was drawn down the center because both halves of the arrangement must have the same "pulling power," and it is simpler at first to compare the halves if they are marked off. It is well to keep a record of the experiments by tracing around the models as soon as a satisfactory ar-

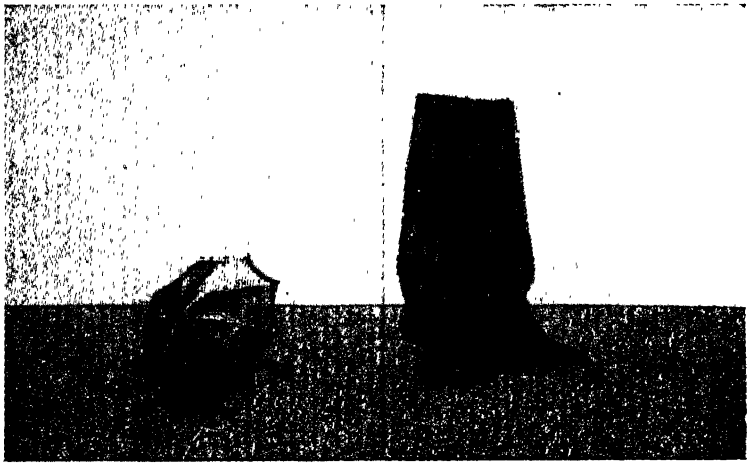


FIG. 84.—Informal balance with unequal attractions. The drape attracts more attention than the parasol, and to balance the parasol, the drape must be placed nearer the center. The larger amount of empty space around the parasol then gives it enough additional force to make it appear as conspicuous as the large drape.

rangement has been made. If this is done the same figures can be used for any number of studies. This method is suggested merely as a means of saving time for it is about as valuable for training the eye as working in materials, and it has the advantage of being done much more quickly and is convenient when materials may not be available. After a few attempts the experimenter will gain a sense of confidence in his ability to balance objects, and will work with them easily.

It is advisable to start with two objects which are alike, and try for formal balance. It will be seen that the objects will balance each other when they are equally distant from the center. (See Fig. 83.) One's sense of good proportion will prevent the space between from being the same size as the objects. If they are to be grouped in order to constitute a single idea the space will be less than the size of

FIG. 85.— Formal Balance. Since balance is sure to come if both sides are alike, the designer concentrates his efforts upon good proportion, harmony, rhythmic movement, and emphasis. Objects and spaces between objects follow the principles of Greek proportion and are in the relation of about two parts to three.

the object, whereas if they are to present two separate ideas the space will be larger.

The next step is to balance two objects which are different in size, shape, or color; this will lead to interesting discoveries. For example, it will be found that an empty space is often more emphatic than a full one, just as a sudden silence coming in the midst of a long loud piece of music seems even more striking than the music. By leaving a large space around an object it will become so emphatic that it will be as important an attraction as a much larger one placed nearer the center line. By moving the models

forward and back, and to the right and left one will soon discover just how much empty space the small object needs between it and the larger one to secure balance. (Fig. 84.) An object which is very striking or peculiar in shape or color will have the same power to attract attention as a larger one which is simple and inconspicuous; two such objects then would balance each other at equal distances

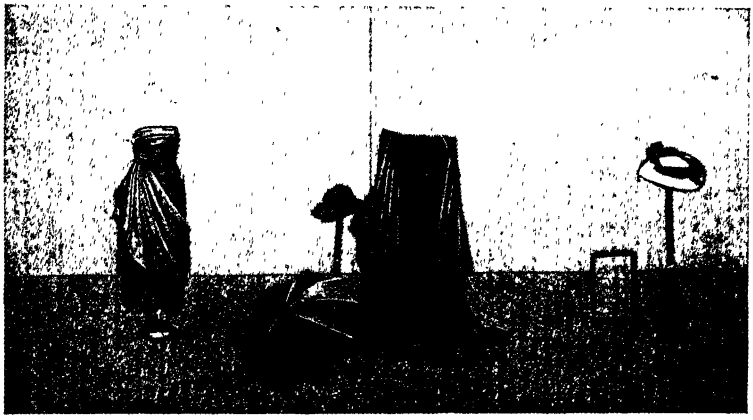


FIG. 86.—Informal or occult balance is the result of the careful adjustment of different shapes and colors so that both halves of the design attract exactly the same amount of interest. Equal attraction in this case has been secured by first working out a central group, and then placing objects on both sides of that group so that the window seems to have the same "pulling power" on both sides of the center line. The principle shown in FIG. 70 *C* has been used in placing the hat and card. Notice how the rhythmic movement in the fold of the drapery on the floor at the right carries the eye involuntarily toward the hat and card, and helps to unite them with the group.

from the center, even though there is a great difference in their appearance. (See Fig. 84.)

Plates 85, 86, and 88 show different types of balance secured through the arrangement of the objects which were cut from the illustration of the window display mentioned above.

Fig. 85 illustrates the formal balance in which everything

on one side of the center has been repeated on the other side. This kind of balance gives the greatest amount of dignity. It depends largely upon good proportion and rhythmic movement for its beauty and interest.

Fig. 86 shows an informal grouping in which is applied the principle of unequal weights placed at unequal distances from the center. The equalization of the amount

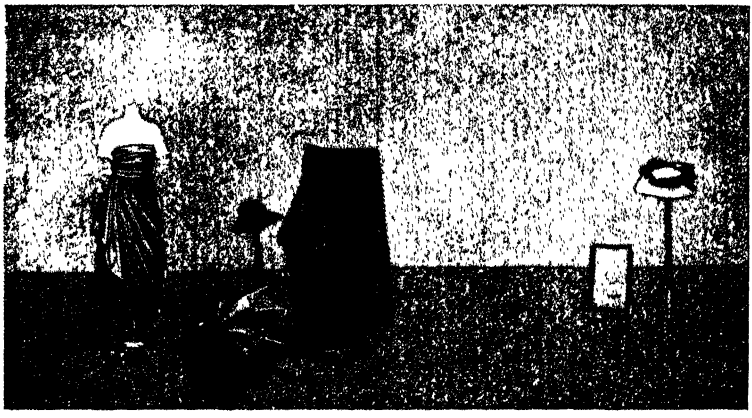


FIG 87.—Lack of balance. So much material has been placed on the left side that the hat and card, even with all the emphasis given to them by the blank space, are unable to hold down the weight of the other half. The removal of that rhythmic line in the drapery has also helped to destroy the balance by making the eye take an uncomfortable jump towards the distant group.

of attraction on either side of the center is secured by first working out a central group which, although made up of different objects, has approximately as much interest on one side as the other. Since more articles are to be used in this window the central group does not need to show exact balance around the center line of the window, because every other object which is added will appear to tip the whole window one way or another. In the end it is the effect of the whole and not of any single part that must be judged. After the central group has been placed there remain the large dress form and the two small objects. The hat and

the card, even when grouped, attract less attention than the dress form, so that it is necessary to make some adjustments. If more empty space is allowed around the small objects they are emphasized so much that they become as important an attraction as the dress form placed nearer the center. In this type of balance one must be careful not to divide the interest in the whole arrangement by

FIG. 88.—A combination of the two kinds of balance, which gives some of the dignity of formal balance with the variety which comes with the more informal arrangement.

making it appear to be two separate displays. The entire design should be seen as a unit. Notice how the rhythmic fold at the base in the right side of the drapery suggests this unity by leading the eye over to the small group, thus definitely implying a relationship; it also aids the balance by making the design seem to stay quietly in place.

Fig. 87 shows the result of placing too much weight on one side of the center line. The mass at the left is so heavy that even with the large empty space around it the small group is not able to hold the gaze as long as the large one does, and there is such a noticeably strong pull toward the left that the whole window seems to sag down that way.

The absence of the fold at the base of the drapery has removed all suggestion of connection between the groups.

In Fig. 88 a combination of formal and informal balance has been used. The two forms have been placed symmetrically and the central group has been balanced in the unsymmetrical or more informal way. The formal placing of the two forms has given a certain amount of dignity and simplicity to the scheme, while the informal group at the center seems a little more varied and may hold the interest longer because it is not quite so quickly grasped by the mind and passed over.

Balance in interior design. While the problem which has just been worked out deals with materials for window displays the principle is the same wherever arrangement is called for. A well balanced wall will have the same amount of attraction on both sides of its center line. A well balanced room will have approximately the same amount of attraction on opposite walls; although the two side walls may be somewhat heavier than the end walls, there should be the feeling that the attractions are about equally distributed around the room.

In placing the furnishings of a room, the architectural openings must be taken into consideration. Very often balance is secured by having a large piece of furniture on one wall of a room as a balance to an opening on an opposite wall. The large pieces of furniture should be placed first, and they are usually balanced symmetrically. The next step is to arrange the smaller movable objects in the room so that they will make convenient groups as well as balanced units. After the furniture has been arranged the attention is turned to the balance within each group.

A study of the room shown in Figs. 89 and 90 makes clear the method of balancing the objects in a living room. The major portion of the four walls of the room is seen, showing the location of some of the openings and the furni-

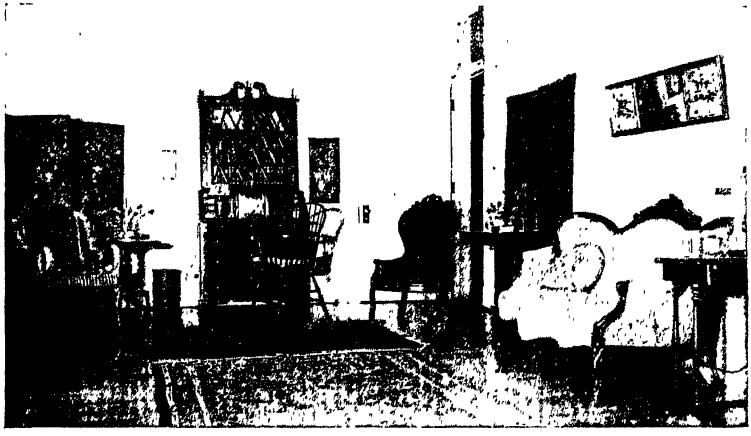


FIG. 89.

FIG. 90.

FIGS. 89–90.—Two views of a living room which show the balancing of furnishings against the four walls. Observe that the secretary is balanced by the piano, while the sofa, with the small table, against one wall balance the table and chairs on the opposite side. Note that the large pieces of furniture are placed to harmonize with the lines of the room, while the chairs create transitional lines which lead the eye from one group to the next. (The photograph makes the chair to the right appear to block the doorway; actually it was placed out in the room, and gave ample room for a passageway.)

ture. Since the piano and the secretary are large pieces, they may well be used to balance each other at opposite ends of the room. Then, too, because it is desirable to place a piano away from the conversation center, and relative seclusion is appropriate for the writing desk, there is an added advantage in having these pieces at the ends of the

FIG. 91.—While the objects on each side of the fireplace are not alike, the eye is held for the same length of time by each group, and a balance results.

room. This arrangement leaves the side walls and the center of the room for more general use. The sofa is placed in the center of the wall space between two doors on one wall, and is balanced by the table on the opposite wall between two windows. The chairs and small tables are placed where they will be convenient for use. It will be noticed that the height of the secretary and of the screen is balanced at the other end of the room by the window and the mirror. So far, the pieces have been more or less symmetrically placed. The objects on the tables are balanced informally, and bring more variety into the room. The color of the Indian shawl on the piano is balanced by the

folded shawl on the chair at the opposite end of the room, and by the books in the secretary. The sparkling colors

FIG. 92.—This chest of drawers with the candlesticks, box, and picture illustrates formal balance. Note that the figures in the Japanese print are balanced informally.

in the pictures, lamps, pottery, and brass candlesticks are repeated on the four sides of the room, so that there is not only a balance in sizes, but balance in color.

There is one place in the room where an unbalanced effect is most likely to occur. That is where a davenport has been placed at right angles to a fireplace. In large rooms where two davenports are used they may be arranged to balance each other on either side of the fireplace. Where there is but one, and it is desired to have it beside the

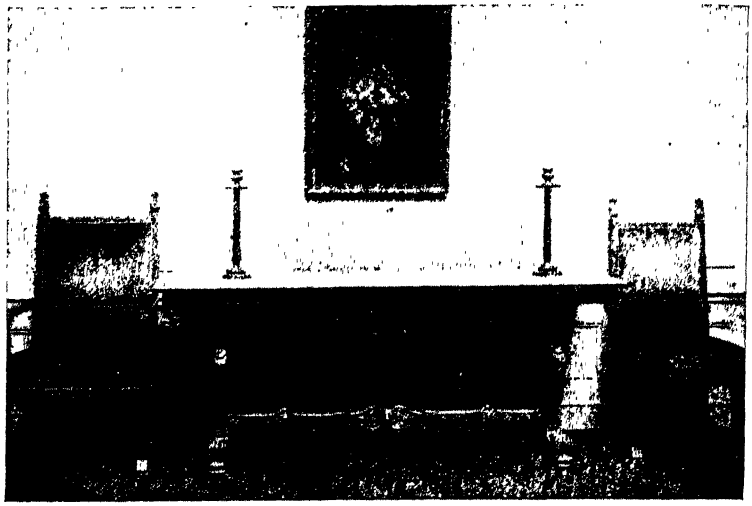


FIG. 93.—(*Courtesy of Wm. French & Co., Minneapolis.*)
This type of furniture calls for the dignity of a formal arrangement.

fireplace, it becomes necessary to place something on the other side to complete the balance. A chair may be placed there, but it must not be too small or too light in scale. A willow chair, for example, would need to have other pieces grouped with it. An upholstered chair with a table and lamp, or two chairs with a table between them would make a successful group. One solution of this problem is shown in Fig. 91, where two chairs and a small table have been grouped to balance the large davenport.

The person who is interested in interior design will find that the kind of balance which is used in the arrangement

of furniture and decorative objects helps to give an individual quality to a group, and it also influences the character of the room. The formal groups in Figs. 92 and 93 are

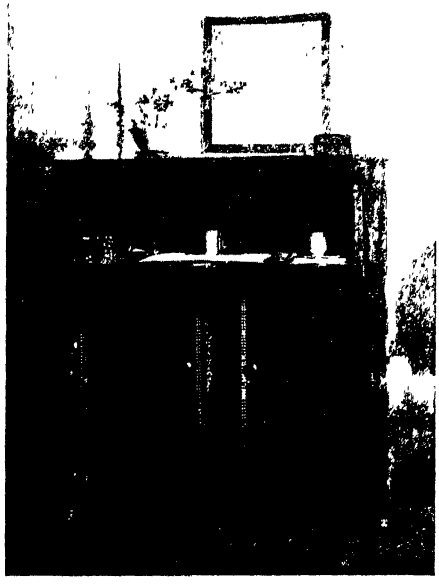


FIG. 94.—Here the informal balance makes for interesting quality and picturesqueness.

examples of the type of arrangement which one would expect to see in a hall, a bedroom, or in a dining room. Balance of this sort gives an impression of dignity and somewhat the feeling that is inspired by a stately building. There is sure to be formality in bisymmetric arrangements, whether the objects are very simple, as in the group with

the chest of drawers; or in greater numbers, as seen above the writing desk; or more pretentious in type, as in the hall.

There is more intimacy in informal arrangements than in formal, and a sort of chatty, conversational quality is

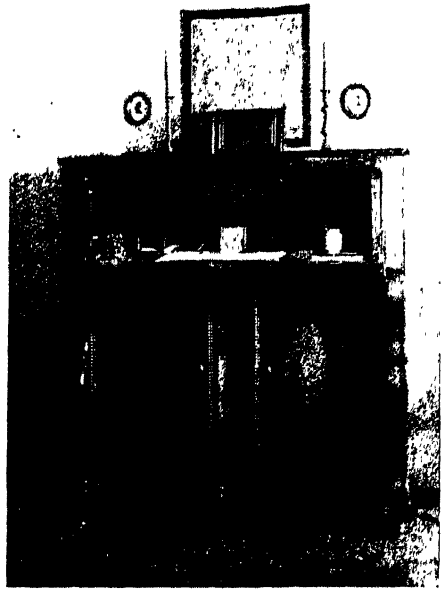


FIG. 95.—An illustration of bisymmetric arrangement in which interest has been secured through a variation in the sizes and shapes of the objects used.

apt to come into a room where informal balance prevails. If one compares the informal arrangement of Fig. 94 with the symmetrical one in Fig. 95, he will notice that the effects are essentially different. There are spontaneity and variety in the uneven grouping, and while the other arrangement is quaint, it is more reserved.

It is not necessary that all the parts of a room should agree in being either formal or informal in arrangement. For example, one might use a formal arrangement on the desk, an informal grouping on the fireplace, and a combination of formal and informal balance on the bookcase, as is seen in Fig. 96. This type of balance makes an impres-

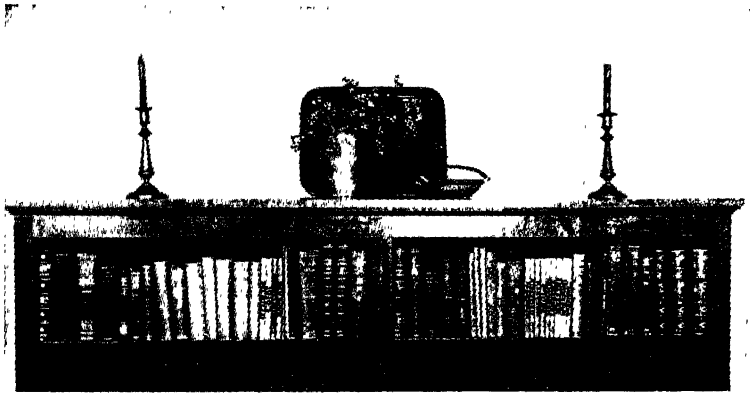


FIG. 96.—A combination of formal and informal balance. The unsymmetrical arrangement in the center has taken away some of the severity which might result from an entirely symmetrical scheme.

sion which lies between the formal and the informal. There is more variety than if the same objects were repeated throughout; yet a certain dignity comes from the repetition of some of the objects.

Testing for a balanced room. In working for a balanced room, one should continually test both halves to see that one half does not present any greater attraction to the eye than the other. In arranging the room the four walls, with everything seen against them, must balance; if one side seems too heavy, it is necessary to add a brighter color, a more striking shape, or simply more material to the weaker side, and keep adjusting the attractions until the whole room looks restful.

Balance in dress. Objects which are seen in an upright position have a tendency to appear to be dropping in space. Therefore it is agreeable to the eye to have the center of attraction come slightly above the mechanical center of the center. Thus it will be seen that Fig. 97B appears to be balanced even though the weight is somewhat greater in the upper half of the body. When this effect is exaggerated, however, as in Fig. 97A, the figure appears unstable. In

FIG. 97.—A familiar silhouette in 1920. *A*. Objects must balance above and below the center line as well as on both sides. Too much weight above the center destroys the appearance of rest and gives the impression of instability. *B*. Balance is restored by reducing the size of the hat and furs, lengthening and widening the skirt, and making heels lower and broader. The fashion of the time is observed, not in its most extreme phase, but sensibly and with regard to the principles of art.

dress one needs to look carefully in order to avoid violation of balance. The fashions of some seasons make a woman look as if she would topple over from the sheer weight of her hat and furs. The woman of taste avoids all extremes in dress, and although she does not wish to appear conspicuous by wearing something strikingly different from everyone about her, she chooses the more conservative styles which will not make her look grotesque. In her choice of hats she must consider not only the balance in

the hat itself, and select one that will look as if it would stay on her head without the need of pins, but the hat must balance with her height, the width of her hips and shoulders, the length and width of her skirt, and the size of her feet and heels. Many women try on hats when seated, and are able to judge the effect only on the face and

FIG. 98.—*A*. Hats of 1920. When both sides of a hat are alike it will be balanced, but there is an additional consideration,—for the hat must balance the figure as a whole, and should not seem too large or too small. *B*. A hat which is balanced informally. *C*. An informal arrangement of trimming which lacks balance because there is too much attraction at the right. To appear balanced a hat should look as if it would stay in place without a pin.

shoulders. When they see the entire figure reflected in a mirror, they are frequently surprised. (Figs. 98A, B, and C.)

Whether the dress and hat shall show formal or informal balance is a matter of personal preference, for they have equal advantages. The formal balance, as has been stated, is easier to use and is appropriate to every occasion. It is likely to show more strength, dignity, and reserve, and is, therefore, especially fitted to clothes for street and sports

wear; in the richer materials it suggests stateliness and formal occasions. (Fig. 99.) The informal balance may show more subtlety and variety; it suggests grace, and is suited to beautiful, soft materials. (Fig. 100.) If a strik-

FIG. 99.—Costume of 1921. Formal balance in dress gives the effect of dignity and reserve, and often of severity. It is very fittingly used in this street dress.

ing band or other decorative note is to be used only on one side of a dress, it should not be placed too far from the center line. If it is placed far out at the boundary of the figure, the dress will appear unbalanced, unless something is placed on the other side to balance it.

SUMMARY. Throughout all these illustrations it has been

seen that if arrangements of any kind are to give pleasure and not annoyance all the shapes and colors used must be placed in such a way that the effect is restful to the eye. This effect of rest or balance may be secured by adjusting

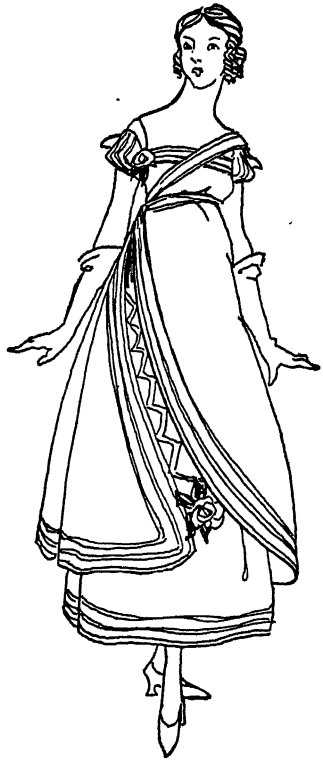


FIG. 100.—(*Taken from Giafferi, "L'Histoire du Costume Feminin Francais," Edition Nilsson, Paris; Gerbel, New York, distributors.*)
Informal balance in dress, when successfully carried out, gives variety, charm, and grace. This type of balance is especially adapted to afternoon and evening clothes and to negligees. This costume of the period of the Restoration shows occult balance.

all the shapes, sizes, and colors in an arrangement with reference to a center line.

Objects which are alike have the same power of attraction, and they

will balance each other at equal distances from the center line. This type of balance is called bisymmetric, and it is formal.

Objects which are unequal in their attraction must be carefully adjusted with reference to the center line in order to appear balanced. An object with greater attracting power moved toward the center will balance a less emphatic one placed farther away. This type of arrangement is called occult or informal balance.

(Note: Balance in color is discussed in the chapter on color, p. 205).

CHAPTER VI

RHYTHM

If a number of persons were asked to define rhythm and give an example of it, the illustrations would vary greatly, but the meaning in each case would be the same; for each person would in some way try to convey the idea of a pleasing, related movement. Some would mention the beat of march music, others the graceful movements of a dance, or possibly the rhythmic dipping of oars together with the rhyming patterns which appear on the water after each stroke. Perhaps the swinging lines of a poem would be recalled; the sensation of easy, graceful, consistent movement is common to all expressions of rhythm.

Definition of rhythm. While rhythm may be defined as a form of movement, it must be recognized that not all movement in design is rhythmic. Sometimes movement is distracting. In art, rhythm means an easy, connected path along which the eye may travel in any arrangement of lines, colors, objects, or lights and darks. *Rhythm,* then, *is related movement.* In a perfectly plain space there is no movement; there is simply a resting place, and the eye remains quiet at any point where it happens to fall. The moment that pattern is placed upon that plain space, or an object is placed against it, the eye will begin to travel along the lines of the object or the pattern, and at that moment movement is created. This movement may be organized and easy, and thus rhythmic; or, it may be very restless and distracting, and lacking in rhythm.

Radiation. Organized movement may be obtained in

another manner—without using rhythm—through "*Radiation.*" In radiation the movement grows out of a central point, as is seen in snow crystals, in leaves, and in shells. Radiation is used very commonly in designs for store windows, and the person who makes designs for embroidery must understand it, as it is the plan for many geometric

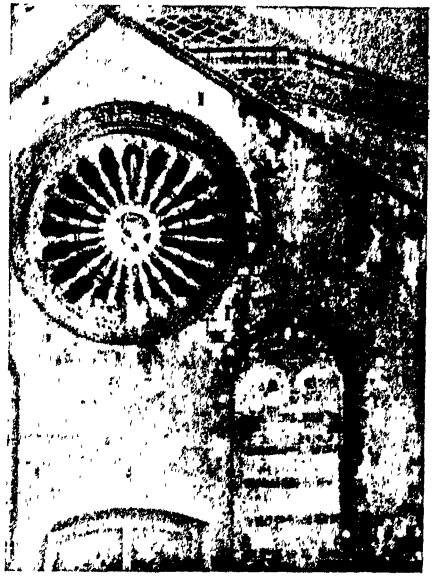


FIG. 101.—CATHEDRAL DI BARI. (*Courtesy of Smith and Packard, Chicago.*) Radiation in design is seen in the plan of this rose window. Here the straight radiating lines are held in, and the effect of the circle strengthened by the heavy band around the edge.

patterns. Two illustrations showing radiation are given in Figs. 101 and 102. In the rose window the straight lines lead abruptly toward and away from the center; therefore the designer found it necessary to restrain this rapid action by means of a heavy band around the outside of these radiating lines. In the brass dish, the curved lines of the motif in the center lead the eye around its circumference as well

as toward the center, and this movement helps to suggest the circle. Because the structure of the circle is inferred by the design itself these lines do not have to be held in so securely at the outside boundary as when the radiating lines are straight.

How to gain rhythm. Returning to the question of rhythm,

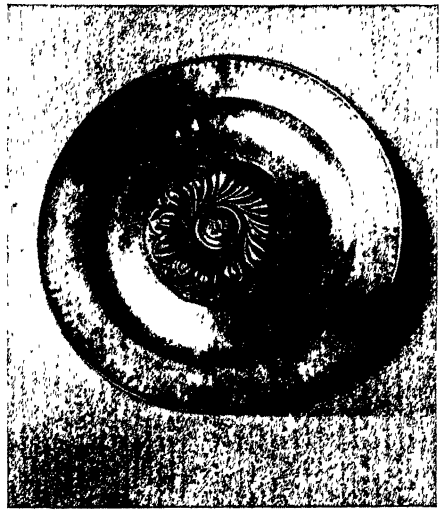


FIG. 102.—Brass dish. Italian, XV Century. (*Courtesy of the Minneapolis Institute of Arts.*)

The design in the embossed center of this dish shows the kind of movement which is called "radiation." Note that the curves of these radiating lines help to unify the design.

there are three outstanding methods of obtaining rhythmic movement:

(1) Through the *repetition* of shapes.

(2) Through a *progression* of sizes.

(3) Through an *easily connected,* or a *continuous line* movement.

Rhythm through repetition. The principle of rhythm as it is gained through *repetition* is recognized when one is conscious of the swing of the beautifully spaced, regularly re-

peated columns of the Parthenon, which may in a way be likened to the strokes of a perfectly trained crew of oarsmen. (Fig. 43.) When a shape is regularly repeated at proper intervals a movement is created which carries the eye from one unit to the next in such a way that one is not conscious

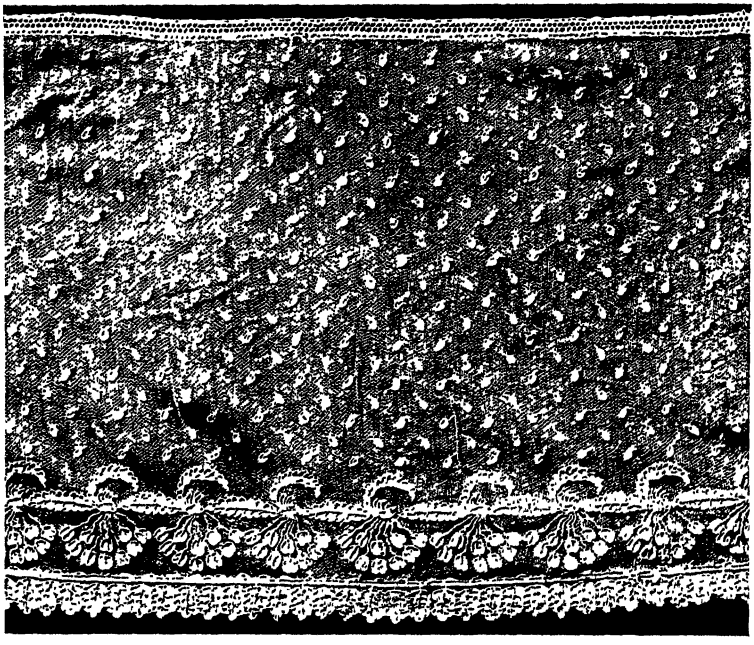


FIG. 103.—The lace designs in FIGS. 103, 104, and 106 show the various ways in which rhythm may be gained. This is an example of rhythm gained through the repetition of the motifs in the border.

of separate units, but of a rhythmic advancement which makes it easy for the eye to pass along the entire length of the space. When these intervals are too far apart the movement will lack rhythm. (See Fig. 57.) In securing rhythm through repetition one must be careful to avoid monotony in spacing, for good proportion is a necessary accompaniment to repetition if beauty is to result. In the lace design

in Fig. 103 there is a rhythm which seems almost to have melody. There is regularity in the repetition of the leaves forming the edge of the lace, which sets off the more varied repetition of the upper units.

There are any number of practical applications of this principle of rhythmic repetition. Hand in hand with good spacing it makes for pleasing effects when one is placing rows of braid or tucks on a dress; placing groups of buttons; repeating dots, squares, or any shape of spot in embroidery;

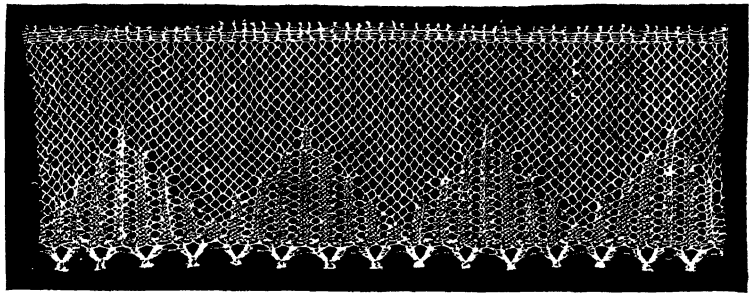


FIG. 104.—The design in this lace illustrates rhythm gained through a progression of sizes.

or putting out rows of objects in store display. It is interesting to remember that repeating a shape a number of times gives an effect of repose; and sometimes a shape which, by itself, is difficult to use as a single unit in design, will be successful when it is repeated at close intervals. This is true of triangles and diamond shapes, which are unrelated to most forms, yet which may work into successful borders when they are placed close together. A rhythmic effect comes into a costume when a suggestion of the tucks or braid on the skirt is repeated in the waist or a note of color is carried from one part of the costume to another.

Rhythm through a progression of sizes. The second way of obtaining rhythm is through a progression of sizes. The

lace pattern in Fig. 104 shows how the eye is carried along an easy route by this method. While a regular progression of sizes may be satisfying enough for scallops on lace and

FIG. 105.—Japanese print by Toyokuni. Japanese artists are masters in the use of rhythmic arrangements in line, light and dark, and color. Observe how the eye can enter this picture at any point, and travel with ease over the entire composition. This graceful movement is due to the rhythm of the lines and the pattern of light and dark masses.

embroidery one enjoys a more varied progression when large objects are involved. Progressing sizes create a rapid movement of the eye, and they are often badly used. An example

of this misuse is seen in the arrangement of pictures or other objects against a wall in a series of steps which carry the eye up toward the ceiling, and hence away from the part

FIG. 106.—The eye is led easily along this design by the continuous line movement.

of the room around which one would like to have the interest centered. While a series of steps is undesirable because it leads the eye to the wrong place in the room, a group of objects in which there is no variation in height is monoto-

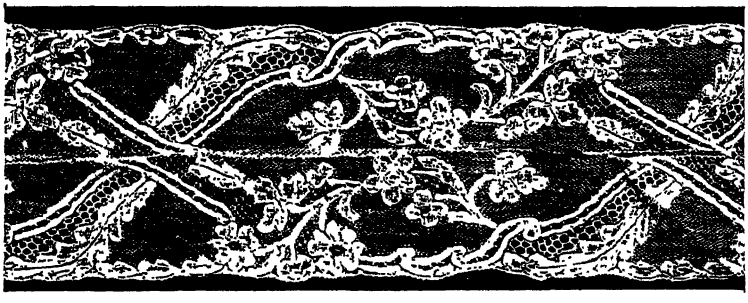


FIG. 107.—The lines of this pattern go in such discordant directions that the design lacks rhythm, and the eye becomes fatigued in the attempt to follow them.

nous. In order to avoid both extremes one should use a series of varied heights such as are shown in the objects on the mantel in Fig. 117. This is a successful arrangement because the clock is lower than the candlesticks. If the central object in this group had been higher than the candlesticks the progression would have been too abrupt.

Rhythm through a continuous line movement. Compositions which show rhythm through continued line are apt to be made up very largely of curves. One finds many fine examples of this type of rhythm in Greek sculpture and in Japanese prints. This impression of continuous line is illustrated in the print in Fig. 105. There is a swinging movement throughout the entire picture, and no matter

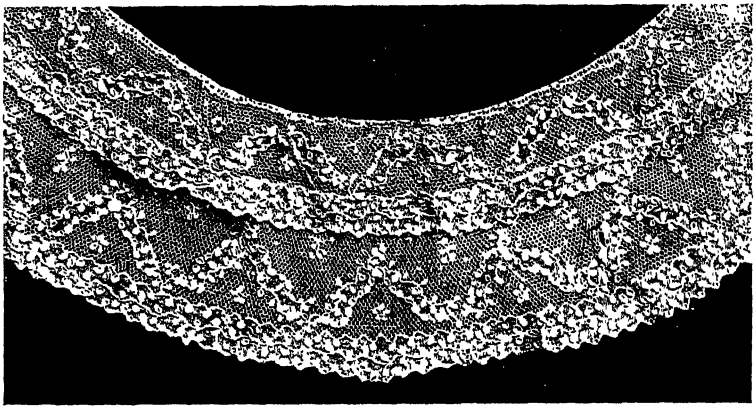


FIG. 108.—The three types of rhythmic movement are seen here. There is rhythm through the continuous line in the center of the bottom border, repetition in the row of dots above this line, while the wavelike lines in the open space above show rhythm through progression.

where the eye enters, it is carried along by the easy, flowing arrangement of the lines, lights and darks, and colors, so that the gaze travels over the whole picture without the least sensation of hindrance. The rhythm in this composition is so striking that it produces much the same sensation as does a graceful dance.

The same type of rhythm that is seen in the Japanese print characterizes the pattern of the lace in Fig. 106. Here is the big free swing of the wide, undulating line, and in the other parts of the design this movement is echoed and re-echoed. Compare the rhythm of this pattern with the lace

shown in Fig, 107. In this case every line seems to be defying every other line, and so there is just as marked lack of rhythm as there would be if two dancers were out of step with each other, and out of time with the music.

Frequently one finds an arrangement in which all three kinds of rhythmic movement are used. This is very apt to be the case in the larger schemes, as in room arrangements,

FIG. 109.—The rhythmic effect in the design of this house is achieved largely by the line of the pediment over the door which rhymes with the line of the gable and of the entrance wing, and that in turn rhymes with the roof line of the body of the house.

but sometimes designs for lace and embroidery and other handicrafts show this combination. Fig. 108 is an illustration which shows what variety can be secured through using the simplest elements,—the dot and the line—and combining them in these three ways. Upon looking at the band at the lower edge one finds that the undulating line through the center shows rhythm by means of the continuous line; above that the dot is repeated rhythmically. Note that the

spaces between the dots have an interesting proportion when compared with the size of the dots. There is rhythm through progression of sizes in the wave-like line running through the wider open band of the lace, and it is interesting to see how this swift motion has been related to the borders

FIG. 110.—Compare the orderly, rhythmic arrangement of the doors and windows on the side of this house with the jerky, distracting movement seen in FIG. 111.

and given more of the appearance of a band by the repetition of the small flower-like unit in each open space.

Rhythm in exterior design. Observe how the principle of rhythmic line movement comes into use in the design of a house. Perhaps it can be recognized more easily if one starts from a point where there is no apparent movement. When one looks at the outline of a square house the horizontal and vertical lines are of equal force, and so they balance each other. Compare with a square house a house which is made up of ells and gables. It is easily seen that there is a great deal of movement in the lines of this type

of house, and if it is to be pleasing to the eye, that movement should be rhythmic. This irregular, rhythmic type of house design was very popular in England during the Tudor period, and many of our Colonial houses show a similar form of rhythm. In Fig. 200 one can see the rhythm in the

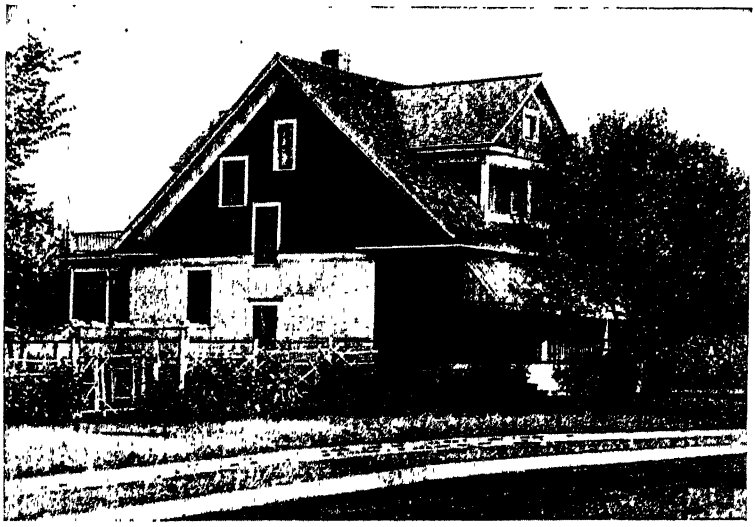


FIG. 111.—Note the unrhythmic placing of the door and windows on the side of this house.

lines of this modern adaptation of the English half-timber house, and Fig. 109 shows a modern adaptation of a Colonial house in which the rhythm is just as apparent as it is in verse or in music. When it is successfully handled there is something about the harmonious rise and fall of a rhythmic line in the design of a house that gives to it an informal and homelike quality. (See Figs. 10 and 80.) When many gables are used the architect is careful to have the angles of these gables, their placing, and the variation of their sizes, similar enough so that the eye will feel a relationship as it is led easily from one part of the house to every other part.

Perhaps the one place in house design where lack of rhythm is most frequently seen is in the arrangement of door and windows on the side of the house. In working out a house plan one usually begins with the arrangement of the rooms and then places the doors and windows in order to secure the best light and air, and wall space for the furniture. Unfortunately these openings do not always look well in relation to each other after the house is built. A glance at Fig. 111 will show the danger of not having thought all the way through the problem of door and window arrangement to the point of foreseeing how they would look in the finished house. It is not difficult to balance doors and windows symmetrically in the typical Colonial house. In this style the stairway usually comes in the center of the house, the windows of each floor come on the same straight line, and no striking line movement is created. But the problem becomes more complicated when there is a side stairway which needs light, a basement door on the level of the street, and windows to be placed in the first, second, and even the third floors. In Fig. 110 these openings have been so adjusted that there is a sense of order in the arrangement, while in Fig. 111 one recognizes that they have been considered only from the point of view of the interior plan. The result is that they form a zig-zag, unrhythmical line from the basement to the roof. Scarcely any lines correspond to a common design, and the path which the lines make does not rhyme with the lines of the house.

Rhythm in interior design. Passing from the exterior of the house to the interior one should ask how much movement would be enjoyed in the design of a house over a long period of time, and where rhythmic patterns and arrangements would be most pleasing.

It should be remembered that movement involves degree as well as kind, and in addition to avoiding uneasy, wasteful

movement, and seeking grace and rhythm, there are times when it is desirable to have complete absence of movement, such as is found in plain surfaces in wall paper and carpets. It is very easy to imagine a wall paper or rug pattern with a bold, swinging, rhythmic line which is very agreeable when seen in a small piece. But when it is repeated over so large an area as the whole wall or floor it shows too much action, and fails to make a successful background for the other things in the room. Since so many things are seen against the walls and on the floors the best choice for the coverings are either plain surfaces or designs which are so quiet in effect that they will be backgrounds in every sense of the word. One can enjoy more emphatic rhythmic movement in small areas, such as curtain materials, or in cushions, than in wall papers and rugs.

Wall coverings. The ideal background against which pictures and other objects are to be placed is one which has a suggestion of texture, but no definite line movement. For this reason the stippled papers make excellent walls. An illustration of this kind of paper is seen in the background of Fig. 273. After the stippled paper, and similar broken textures, such as are seen in sand-finished walls and in grass-cloth, comes the paper with a pattern which shows just a vibration of light and dark and pattern, but not a noticeable movement. (See the background in Fig. 3.) Conspicuous diagonal lines make the poorest kind of design for walls because they create rapid action in opposite directions. (Fig. 112.) If a line design is desired it is better to choose a good stripe than a diagonal pattern. In a striped paper the lines are closely related to the structural lines of the room, and if the lights and darks of the stripes show an easy transition from one to the other there will be an agreeable amount of movement which is not inconsistent for a background. (See Fig. 235.) As the contrast between the lights and darks in the stripes increases it would be found

that the movement would increase correspondingly, and the paper would become less desirable for a background.

Floor coverings. Since floors should make a quiet base for the room, the same good judgment should be used in the selection of the designs for the floor coverings as for the walls. A comparison of the two rugs in Figs. 113 and 159

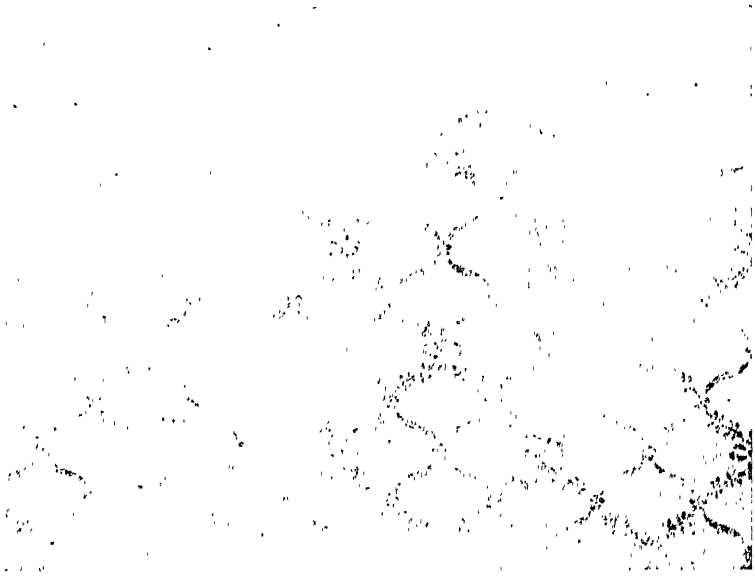


FIG. 112.—Diagonal lines in wall paper have nothing in common with the lines of the room and they create too much distracting movement to be suitable as a background.

will demonstrate that the eye travels along the lines of a design. Where these lines are conspicuously diagonal, contradicting the structural lines of the room, they become very annoying. This is especially true when they contrast with the background in their light and dark values. (Fig. 113.) On the other hand, where the lines of the design follow, or rhyme, with the lines of the room, the movement that results is agreeable. As with the wall covering, the

most successful carpet designs are those which merely show interesting texture, and perhaps a vibration of pattern and color.

When the amount of movement that is desirable for walls

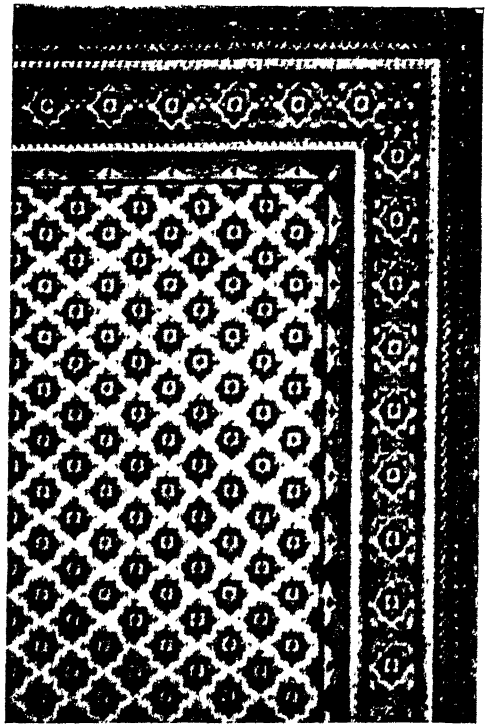


FIG. 113.—When crossing diagonal lines are repeated over a large surface the pattern is apt to become very distracting. These designs are especially confusing if there is a strong contrast of light and dark. Such patterns are poor for wall and floor coverings, which should appear flat and show little or no movement.

and carpets has been decided one is ready to think of the design of the furnishings. The first requirement of a good design is that it be suitable for its purpose, and this must be considered before the type of design is selected. In the

figured pattern of a drapery material used in a room which has plain walls, a rather greater degree of movement may be allowed than would be pleasant for walls and rugs. Here the area is comparatively small, and the material hangs in folds which break up the definiteness of the movement of the design. (See Figs. 221A and B.) The curved stems of a bouquet of bittersweet might show even more striking rhythm than the design in overdrapes. This rhythmic line would bring gayety into the arrangement, and would be enjoyable because the area is so small that one would not tire of it, as one would of a large amount. (Fig. 239.)

Furniture design. When a person selects furniture he prefers to have his pieces show stability rather than movement, and so he selects either straight lines, or restrained curves which are both strong and graceful. Too much straight line will result in monotony, and this becomes more noticeable if several straight line pieces are used together. A room furnished with Mission furniture shows how tiresome the straight line may become when it is unrelieved by the curve. Curved lines give movement, and if they are exaggerated, or are used in too many pieces of furniture, the room will look restless. The ideal design for furniture is one in which there is enough of the straight line to give dignity and stability, and enough of the rhythmic curve to relieve the severity of the design. (See Fig. 12.) It should be remembered that too much movement, even if it is rhythmic, is undesirable, and the Greek's motto "Nothing in excess" applies to rhythm as well as to every other expression in art. It is easy to get beyond the grace and refinement of the slightly rhythmic line to a point where the curves are so extreme that the effect may approach vulgarity. The three chairs in Figs. 114, 115, and 116, were designed by Thomas Chippendale and show that even the work of so famous a designer may be very unequal in quality. Fig. 114 shows lack of rhythm. Fig. 115 is a beautiful example

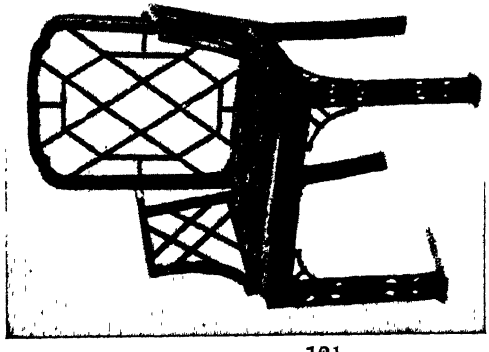


Fig. 114.

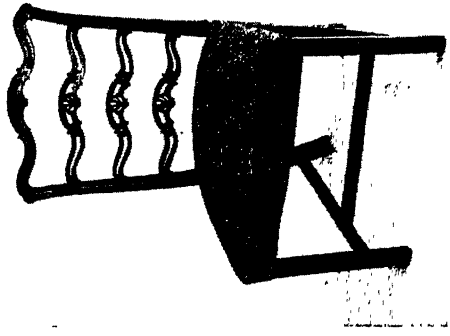


Fig. 115.

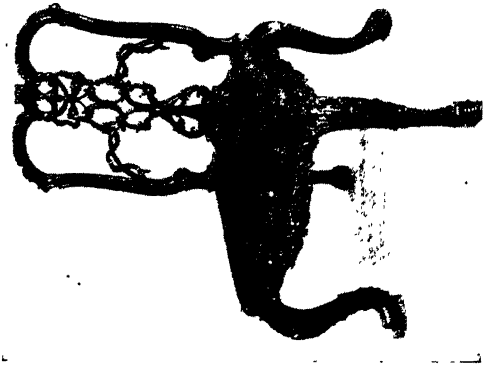


Fig. 116.

(*Courtesy of the Metropolitan Museum of Art.*)

Three Chippendale chairs showing:
(Fig. 114).—A startling lack of rhythm.
(Fig. 115).—Beautiful rhythmic lines and spaces.
(Fig. 116).—Excessive movement, resulting in loss of dignity and restraint.

of rhythm gained through repetition, as seen in the ladder back, and of the rhythm which comes through the rhythmic progression in the sizes of the carved motifs which are seen in each of the cross pieces of the chair back. This chair shows dignity, refinement, and grace of line, combined with

FIG. 117.—The fireplace in this room has been made more important by the way in which the furniture has been arranged. Note that all the lines lead the eye directly to this center of interest. There is a pleasing variety in the progression of the sizes of the objects on the mantel, and a subtle proportion in the spaces between the objects.

beauty of proportions. The chair in Fig. 116 shows rhythmic lines so extreme that it is entirely lacking in restraint and dignity. Furthermore, it does not suggest the function of a chair.

Furniture arrangement. When one has learned to recognize rhythm he will discover that its use in arranging the furnishings in a room goes a long way toward giving that room fine quality and an impression of liveableness. On the

other hand, there is a scattered, unsociable effect in a room where the furnishings are not placed with regard to line movement. One of the fundamental principles in the arrangement of furniture is that it should be grouped according to its use. A knowledge of shape harmony will lead one to place the main lines of each group so that they will conform to the lines of the room, but one needs to know how to control the movement of the eye if the effect is to be perfectly successful. The furniture and decorative objects should be so arranged in the room that the eye will be carried along each piece toward a center of interest where it is desired that the eye should remain at rest for a while. Any point in the room which is considered interesting or important may easily be emphasized by the way the furnishings are arranged. If the fireplace is the favorite spot, the strongest movement made by the lines of the furnishings will carry the eye there. If a group of windows is particularly admired, the eye may be led there. Or if the bookcase is the most attractive spot in the room the leading lines will be so placed that the eye will go there first of all. This is illustrated in the living room in Fig. 117, where the furniture has been grouped around the fireplace for the sake of sociability, and the lines of each piece carry the gaze directly to the point which the designer believed to be of greatest interest in the room.

Arrangement of pictures to gain rhythm. It is not enough to use the rhythmic movement gained through grouping, but every separate object in the room should be examined for its line movement before it is placed. It would be interesting and profitable for decorators and advertisers to watch the audiences attending a series of talks in a lecture room. In this room there are two portraits just above the speaker's desk. A profile portrait of Washington at the left faces out to the left, and a profile portrait of Lincoln at the right faces toward the right. This creates a movement on both

sides of the desk which carries the gaze away from the speaker. Even the ablest speaker is handicapped in that room, and an average speaker finds it very difficult to hold

A.

B.

FIG. 118. *A.* Movement directed away from a group destroys the unity of the arrangement. *B.* Movement kept within a group unifies an arrangement.

the attention of his audience because the unrhythmic movement caused by the placing of the pictures carries the eye away from the speaker so forcefully that it soon becomes a positive annoyance to anyone who is sensitive to line. With the position of the portraits reversed the speaker would actually be helped in holding his audience, by the powerful force of line movement.

Since most pictures and objects carry the eye in some definite direction, the person who is to place these things should know how to make the best use of this movement. Compare the arrangements of flowers and pictures on the bookcase in Figs. 118A and B. If the flowers in "A" attract

FIG. 119.—Costumes of 1919. In *A* the movement is entirely consistent and related enough to be agreeable, while in *B* the eye finds three different directions to follow in the sleeves, four in the waist, and four in the lines of the skirt. The result is so confusing that it is tiring.

the attention first the eye travels from them to one of the pictures. It is then led out to the wall, and in order to enjoy the other picture a conscious effort is made to bring the gaze back to it. The movement in that picture leads the eye to the other wall, so that these opposing movements pull away from each other, and the group is divided into three separate attractions. In the arrangement in "B"

the pictures are reversed, and their action helps the eye to stay within the group. No matter what attracts the attention first, it is carried from one thing to another, but always back again into the group, and the rhythmic movement is completed.

Rhythmic movement in dress. Rhythmic line movement does much to make a woman's costume beautiful. The charm of the Japanese kimono is very largely due to the easy grace of its curves, and when rhythm is seen in modern dress it is likely to give the same pleasurable quality. The dress in Fig. 119A has a rhythmic line in the waist as its characteristic note, and there is an echo of the same movement in the skirt. Curved lines have more relationship to the human figure than angles have, and for that reason a series of rhythmic lines is more pleasing than a series of angles in dress. But, even though curves are agreeable, they must be used with economy. The free swing of the Japanese costume must be subdued for the American, although the spirit of its line may be retained. To use rythmic lines successfully in dress one should choose one place on the costume for the most emphatic curve, and then keep all the other lines simpler. Knowledge of the effect of line movement in giving the appearance of altering proportions will make the designer select either a dominant horizontal or a vertical movement for the person who is to wear the dress. (See Figs. 63 and 64.) After this direction has been decided, all the other lines of the dress will be subordinated, and the rhythmic lines will be used to soften the other lines of the dress. If the rhythmic line has been chosen for the waist, as in a fichu or surplice, the lines of the skirt will be simple—either a slight suggestion of curve, as in Fig. 119A, or a straight line. When there are cross lines in the waist, angles and straight lines in the skirt, and unrelated curves in the sleeves, there is bound to be lack of rhythm, as in Fig. 119B.

Just as furniture may be arranged to lead toward the important centers in a room, so may a dress be planned to make the most of the wearer's good points. A costume may have lines which will carry the eye directly toward any feature that the designer may wish to emphasize, and away from anything to which he does not wish to call attention. Lines which lead rhythmically to the face may be secured by the use of bands of trimming near the face or by the outline of collars and necklaces. All these seem to form a frame which holds the eye near the face and centers the attention there.

There is another aspect of rhythm which should not be overlooked when one is speaking of rhythm in dress. Dress should not be considered apart from its use, and no matter how beautiful its design may be, if it is not useful, it is not successful. When the dress is so tight at the waist, sleeves, or skirt that it interferes with the rhythmic movements of the body it has violated the principle of rhythm just as much as it would have done had its lines lacked rhythm. The skirt in Fig. 119A is as narrow at the bottom as it can safely be, while the one in Fig. 119B would really cause the wearer to "hobble."

Rhythm in store displays and advertising. Of all the people who are working out arrangements the window designer and the advertiser have the greatest responsibility for knowing how to control the movements of the eyes. A designer whose display carries the eye away from something important is actually wasting his firm's money. In every display there are some major and some minor attractions, and oftentimes some rather unimportant objects which are used to fill in. In some displays there is such lack of organization that the eye is not led to any particular point, and there is utter confusion. If the designer had known how to handle line, these objects could have been so placed that they would lead the attention to the major attractions, and yet every separate thing could have been more easily seen.

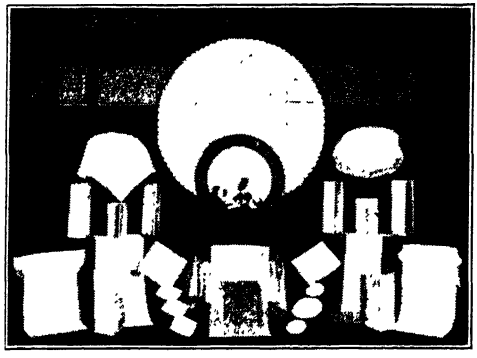


FIG. 120.—Place anything upon or against a plain surface and notice how the eye will travel along paths which have been created by the arrangement. For the sake of beauty and for economy of effort these paths should be easy to follow without being so rapid as to cause annoyance. In the window above, every line leads to another part of the display.

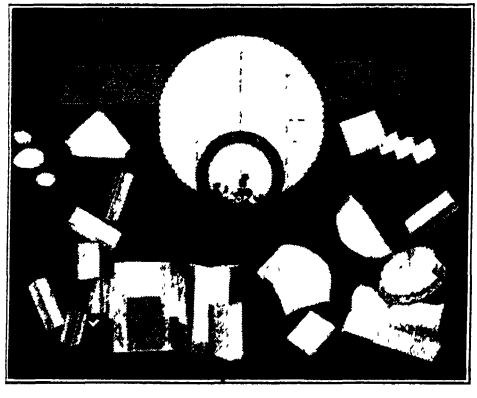


FIG. 121.—If the eye jumps restlessly from one spot or line to another or in too many directions there is lack of rhythm and wasted energy. In this arrangement the paths which are created lead in so many directions that the eye must make several attempts to see the entire display, and few people will take that trouble in passing by. Groups which make steps leading toward ceilings or outside walls are to be avoided.

It has been shown that when a group of lines or objects is put against a background the gaze has a tendency to move along them. If the eye finds an easy and connected path

to travel, the arrangement is said to be rhythmic, and this is the most effective as well as the most economical kind of movement. On the other hand, if the eye moves in a jerky,

FIG. 122.—Somebody else is getting the benefit of the cracker advertisement because the line of the crackers leads the eye to the candle shade.

restless, or disconnected manner, the group lacks rhythm, and such arrangements do not hold the attention. There is rhythm in the store window arrangement in Fig. 120, and one has the same impression that he would have if he were watching the drill of a well trained military company. The arrangement is orderly, and the gaze is carried along a charted line of travel, so that everything in the window is made to count, and one sees everything in its proper relationship. Looking at Fig. 121 is like watching a crowd of

children on a playground. The same materials have been used in both windows, but the effect of the latter is a bewildering maze, and the eye is confused by the network of unrhythmic paths.

The application of this principle of rhythm to advertising is very obvious, and a glance at Fig. 122 will show the inefficiency which results from the inability to control line movement, as compared with the successful use of line in Fig.

FIG. 123.—In this car-card the illustration forces attention upon the line "The Children's Shop."

123. These examples show that lines, lights and darks, and colors should be so arranged that the eye will go more or less rapidly to the point where the attention should be directed. They also show that it is possible to use rapid movement very effectively if it is understood and controlled.

SUMMARY. It is hoped that the applications of rhythm which have been noted here will lead the reader to the conviction that all selections and arrangements should be able to meet the following standards for rhythm:

(1) There should be lines or paths to carry the eye easily and pleasantly from one thing to another until every detail has been seen without effort.

(2) The larger the space the less pronounced the movement should be, even though this movement is rhythmic. In very large areas, as in floor and wall coverings, the effect should be practically that of plain surfaces, so that the eye will not become fatigued.

CHAPTER VII

EMPHASIS

The eye and the mind do not enjoy a haphazard collection of shapes and colors. There must be pattern or design in all arrangements, and in a pattern everything which is used must take its proper place in relation to the whole scheme. *Emphasis* is the art principle by which the eye is carried *first to the most important thing* in any arrangement, and from that point to every other detail *in the order of its importance.*

Whenever any object is selected or arranged with reference to its appearance, this principle of emphasis is used, and the success of the result depends upon a knowledge of:

(1) *What* to emphasize.
(2) *How* to emphasize.
(3) *How much* to emphasize.
(4) *Where to place* emphasis.

Simplicity the most important factor in emphasis. Although it may seem paradoxical, this Principle of Emphasis might be termed Simplicity, because almost invariably the rule as to how much emphasis it is well to use is to keep things simple. Next to appropriateness for its purpose, the best quality of any object is simplicity. Without exception, the standards for judging objects which are to be used are:

(1) Utility, or suitability to purpose.
(2) Simplicity.
(3) Beauty.

Nowadays, in turning to historic art for standards of beauty, one finds that when one seeks inspiration and standards for simplicity, two periods of the history of art stand foremost.

These two are the best periods of Greek and of Japanese art. Simplicity is really the keynote of these two great schools, and if only one can capture that spirit of reserve—of simplicity—he will find that he has the most important single factor in art. The way to achieve simplicity is to understand emphasis:—the principle that there should be only one outstanding idea in any scheme, and that all others should be subordinated. (See Figs. 43, 129, and 105.)

It requires great effort to transfer one's attention from the simplicity and nobility of Greek art to the turbulence of a circus; yet there is just that difference in many attempts to work out practical art problems. Many rooms and any number of costumes are literally three-ring circuses. There is the woman who wears white shoes and black stockings, a plaid skirt, a figured waist, and a much-flowered hat; and everyone has seen the room with figured wall paper freely hung with pictures, carpeted with conspicuously patterned rugs, and still further confused with figured furniture covers, crowded shelves and bric-a-brac. Why are these combinations so bad? Because people have not been content to choose one outstanding feature in the room or the costume and subordinate the others, but have put equal emphasis upon all; and the result is chaotic.

What to emphasize: subordination, and the law of backgrounds. The principle of emphasis states that attention should be called to the different parts of a design in the order of their importance. In working for any degree of success in arranging materials one must form a definite plan and keep to it. In making this plan decide first upon the most important feature of the group, then upon the one which should take second place, and so on until the last detail has been classified. To carry out the plan in the arrangement, first call attention to the important things, and suppress or subordinate those which are less important. In each field of decoration the most important features may

vary, but the one which should have the least emphasis is always the same: it is the background against which objects are to be seen. From this observation we may draw one of the most important laws in art: *Backgrounds should be less conspicuous than the objects which are to be seen against them.*

How to emphasize. There are several means by which

FIG. 124.—ADORATION OF THE LAMB, by Hubert and Jan Van Eyck. (*Courtesy of the University Prints, Boston.*)

This composition shows that many objects can be used successfully in one scheme if they are grouped to form clearly defined centers of interest with enough plain space around each group. Here a main center of interest—the Lamb and angels—is supported by subordinate centers, each of which takes its place in the order of its importance.

one may create emphasis, or attract attention, and the most important of these are:

(1) By the placing or grouping of objects.

(2) By the use of contrasts of light and dark or color.

(3) By using decoration.

(4) By having sufficient plain background space around objects.

(5) By unusual or unexpected lines, shapes, sizes, or colors.

Sometimes all five of these methods may be combined in one single design, as in a design for a building, a room, or

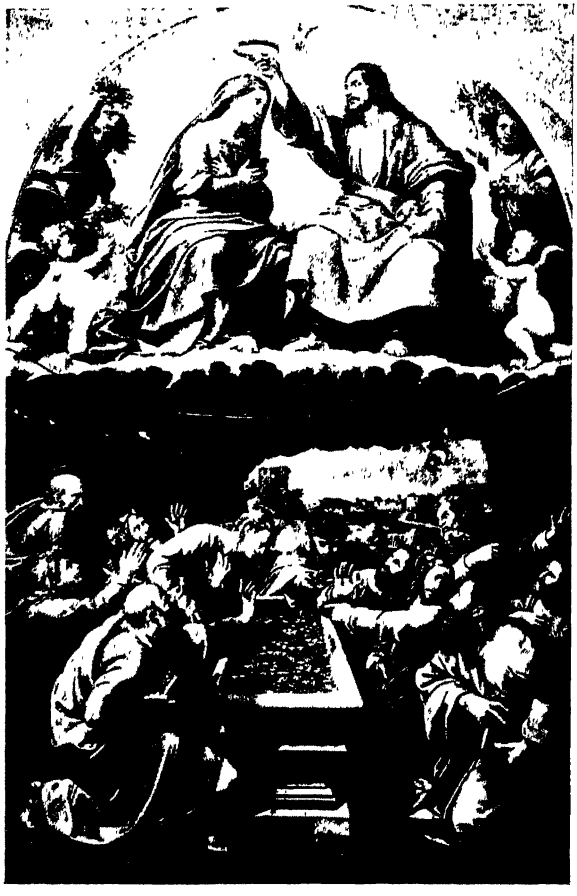


FIG. 125.—THE CORONATION, by Giulio Romano. (*Courtesy of Anderson, Rome.*) In this composition there are two centers of interest which are of equal importance, and so the picture cannot be seen as a unit.

in a design for a very large store window. Usually, however, one, two, or three of these means will give all the force that is needed.

Grouping or placing of objects. The "Adoration of the Lamb" (Fig. 124) is an outstanding example of emphasis gained through grouping. There is a profusion of detail in this picture, and yet the details have been so carefully organized that the plan of the composition makes a single impression. The eye is first attracted to a main center of interest,—the Lamb surrounded by the circle of angels—which seems to have an added importance because of the plain space around it. Then there are the two balancing groups below this on each side, which are next in importance. Although there are more people in each of these groups, they attract less attention than the central group because they are so close together that they are seen as a mass. The small groups above have even less importance, and so throughout the picture each subordinate group or object takes its proper place, and all the elements are welded together into a unit. Additional emphasis has been given to the main center of interest because the principal lines in the picture lead the eye toward that point. Although there are fewer figures and less detail in "The Coronation" (Fig. 125) than in "The Adoration of the Lamb," the picture does not present a single effect. Here are two centers of equal importance, and the result is that the picture divides into two separate compositions. Arrangements will be clear and easy to grasp if the principle that *there should be but one main center of interest in any scheme* is followed. (See Figs. 45, 212, and 139B.)

Emphasis through contrasts of light and dark and color. The eye is quickly attracted by strong contrasts of light and dark, or by contrasting color, and one of the most striking ways of calling attention to any object is to place it against a background with which it contrasts. Rembrandt obtained a dramatic quality in his "Presentation in the Temple" by the way in which he distinguished his main center of interest with strong lights, and subdued the rest of the

picture by suffusing it with gradually deepening shadows. (Fig. 126.) It is interesting to note how this master of the use of lights and darks prevented the harshness which is

FIG. 126.—PRESENTATION IN THE TEMPLE. Rembrandt.
A picture in which the attention is called to the main center of interest and held there because of the strong contrast of light and dark.

likely to come with strong value contrasts by balancing the large areas of strong light with small notes of light placed in other parts of the picture. A valuable lesson may be gained by a careful study of this picture: if strong contrasts of light and dark are to be used in any decorative scheme

of a considerable size, they should be tied together. This can be done by combining with them a large amount of some intermediate steps of light and dark values which come somewhere between these two extremes. The final effect of a good composition should be that of a dark scheme accented with lights, or of a light scheme made interesting through its dark notes. The arrangement which shows equal amounts of light and dark would not be pleasing because it would be as confusing as two equal centers of interest such as are seen in "The Coronation" (Fig. 125). (See Fig. 226.)

Emphasis gained through the use of decoration. Nothing could be more desirable than to have all decoration as well used as that which is found on the Parthenon. (Fig. 43.) This building sets a remarkably high standard in the use of decoration as a means of gaining emphasis. It shows how the eye is attracted to pattern, and also shows the complete satisfaction which comes from an economical use of the right kind of emphasis. The chapter on Structural and Decorative Design outlined the need for a fine form or structure in any object before decoration was even considered. This fine form having been obtained, the worker may decorate it in such a way that the beauty of the structure will be enhanced. There is perhaps no better example of the subordination of decoration to structure than in the carvings on the frieze of the Parthenon. Here the structure suggested the place for the sculpture, and, although the beauty of the building is not dependent upon the carvings, added interest is given by their introduction.

Occasionally one finds a highly decorated object that has been made for no other purpose than to please the eye. If it is truly beautiful it has reason to exist, and one frequently brings an object of this sort into decorative arrangements in order to lend a certain note of emphasis, either through its color or its fine pattern. Jewelry is an illustration of this

type of emphasis in dress. A pendant, for example, may be rich in jewels and intricate in pattern. The choice of the proper gown on which to wear the pendant then becomes the art problem, for the pendant will be thought of as the center of interest on the dress, and will bear the same relationship to the dress that the carvings on the frieze bear to the Parthenon. The Chinese vase shown in Fig. 9 is an example of a similar note of emphasis in a room. It is a thing which is to be enjoyed for its own beauty, and should not be used as a container for flowers.

Emphasis in surface patterns. A good surface design has two main characteristics. First, the pattern should closely cover the surface, and second, there should be very little contrast between the lights and darks. One is constantly confronted with table linens, dress fabrics, wall papers, rugs and upholstery materials which have surface pattern. Unless choices are made with a complete understanding of how much emphasis may be secured through pattern, one is apt to make unwise selections, and discover that the thing which seemed attractive in the shop looks too conspicuous when it is made into a dress or seen in the room. The two things, then, which are of greatest importance in selecting surface patterns are value contrast and the amount of plain space around each figure. The two previous topics showed, first, that if objects are packed together closely they attract less attention than when widely separated; and second, if there is a strong contrast between lights and darks an object is much more conspicuous than when the values are very similar. If these two considerations are kept in mind one will not go far wrong in choosing any surface pattern; if the design is closely packed, covering the surface well, and close in values, it will be quiet in effect. (See Figs. 159, 176, and 215.)

Emphasis through plain space around objects. As one learns the value of using plain spaces, there comes a cor-

responding change in the choice and arrangement of objects. Certain schemes begin to produce a peace of mind when they are seen—a most welcome contrast to the feeling of confusion and unrest caused by crowded arrangements. Psychological experiments show that an individual has the

FIG. 127.—GIOVANNA TORNABUONI WITH VENUS AND THE GRACES, by Botticelli. (*Courtesy of the University Prints, Boston.*)

Botticelli has called particular attention to the lovely Giovanna Tornabuoni by the large amount of plain space which he has left around her. This use of plain background is the most effective way to call attention to the fine qualities which anything possesses.

capacity to enjoy only a limited number of things at one time, and that when this amount has been exceeded one actually sees less rather than more. Botticelli's "Allegory" (Fig. 127) delights us with its exquisite beauty; it may be made to illustrate two important things about the principle of emphasis:

(1) That an object gains importance when it is separated

from the things around it and is given enough plain space for a background.

(2) That when objects are placed close together they are seen as a group, and not as individual units.

There is no question as to what Botticelli intended for the

FIG. 128.—TRIPTYCH, by Giovanni Bellini. (*Courtesy of Anderson, Rome.*)
In this altarpiece emphasis has been centered upon the Madonna and Child in the central group by the use of the arch, which brings an unusual line into a composition made up so largely of vertical lines.

main center of interest in this picture, for the figure of the beautiful Florentine lady, darker than the background, and set off by plain space, attracts the attention immediately, while Venus and the three Graces have been grouped to form a secondary center of interest. This use of plain spaces is one of the most important considerations in Emphasis, because plain backgrounds bring out the quality of every object seen against them. (See Fig. 227.)

Emphasis gained by means of the unusual or the unexpected. In the beautiful altarpiece by Bellini, shown in Fig. 128, three separate pictures form a single unit; the three are of about the same size, and there is practically the same amount of value contrast in each group, yet we immediately recog-

FIG. 129.—DOOR OF THE NORTH PORCH, ERECHTHEUM, ATHENS. (*Courtesy of the University Prints, Boston.*)

The doorway of the Erechtheum shows perfection in its emphasis. This doorway has not been excelled in the history of art for the beauty of its spacing and the quality of its decoration.

nize the importance of the Madonna and Child. This has been brought about by the central placing and by the unusual line of the arch thrown over the top of the central portion, which captures and holds the attention.

In order to discover how much force there is in anything unusual, glance quickly at a shop window or a table full

of new books in their paper covers, all spread out in a book store, and see what attracts the attention first. After noting the order in which these things catch the eye, look again to see what features the objects possessed which made them outstanding. This may be seen from a description

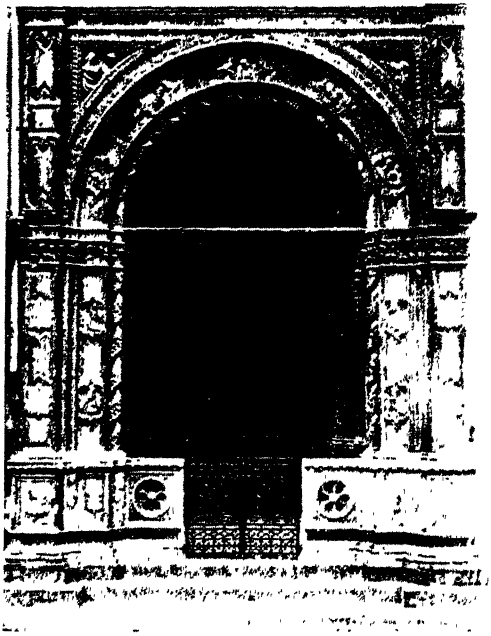


FIG. 130.—THE LOGGIA DEL BIGALLO, after designs by Andrea Orcagna. (*Courtesy of Smith and Packard, Chicago.*)

While there is more carving in this doorway than in FIG. 129, there is still a feeling of reserve. The decoration is beautiful in itself, and it is beautifully placed.

of a certain table on which there are about twenty books in paper covers. This table is not large and so the whole group can be seen at a single glance. In the assortment of a month's new books, the covers vary from light to dark, from gay to dull, and every one has a different design. The first book to attract the attention has a checkerboard pattern of dark blue and white, with each check about five-

eighths of an inch square. The second book to be noticed is a brilliant orange, and the third an unusual poster head against a plain background. The other covers are much more nearly equal in their appeal, though some of them are so quiet in their effect, with their orderly arrangement of

FIG. 131.—DETAIL OF DOORWAY TO THE PALACE OF THE DUKE OF AGUAS. (*Courtesy of Smith and Packard, Chicago.*)

All restraint was abandoned in the design of this doorway, and the result is that the decoration overpowers the architecture.

printed matter and conservative color, that they seem willing to wait for the consideration which is due their quality. What makes these books stand out beyond their neighbors? The first has a very striking and unusual contrast of light and dark, the second a conspicuous color, and the third has an unusual pattern set off by plain space. Thus one

sees that anything which is unusual in line, shape, color, or size will become emphatic.

This type of emphasis is applied in underlining words in a letter or capitalizing them in print. Newspaper headlines show the power of emphasis through unexpected sizes. In any design this unexpected force may be gained through a change in size or shape, or by an unusual line or color. When the force of the unusual is not recognized by the designer, attention is apt to be called to something which should not be emphasized.

How much to emphasize. In order that one may get a general as well as a comparative idea of how much emphasis is desirable in the different fields of applied design, various problems will be discussed in each of these fields. Because the suitable amount of emphasis varies with every problem, emphasis may be regarded as a graded scale, and the greatest amount of force that can be used with good taste for each of these types will come at a different point on this imaginary scale. Surfaces which are to be considered as backgrounds against which other things must be seen should register emphasis at a point near zero in the scale. The person who wishes to be sure of securing fine quality in his work will usually stop short of the full amount of emphasis which it is possible to use, and try instead to create an impression of having held something in reserve. The three doorways which are seen in Figs. 129, 130, and 131 have been chosen to show three steps on this imaginary scale. The design of the Erechtheum is one of the most perfect examples of emphasis known. In this doorway all irrelevant details are omitted, and only enough emphasis is used in the design to suit the dignity of the entrance to a temple. Observe that the greatest amount of carving is placed upon the head of the doorway, and the beautifully spaced rosettes carry the emphasis down, making the frame of the door subordinate to the head. With all its simplicity and reserve of decoration

there is no suggestion of barrenness in the design; it has not come too low in the scale, for its beautiful proportions, the rhythmic repetition of all its parts, and its subtle variety in light and shadow, are characteristics of a masterpiece. The doorway by Orcagna comes up toward the middle of the scale of a possible range for good emphasis. Orcagna did not go as far as he dared—he preferred to leave us with the impression that he had power and that it was well under his control. In the doorway of the palace at Valencia the architect has thrown off all restraint. He has indulged in an orgy of decoration which is similar in type to the room and the costume which were described in the first part of this chapter. This amount of carving goes far over the limiting mark on this graded scale of emphasis of which we have been speaking. Let us repeat that the best general answer to the question "How much emphasis will it be well to use?" is "Keep it simple."

Emphasis in exterior design. The materials of which a house is built should influence the amount of emphasis used in its design. If more than one kind of material is to be used, care should be taken to keep one of these dominant. One should see at a glance that a house is brick with a stone trim, or stucco with a brick or a wood trim. Equal amounts of two or three materials, such as stucco, brick, and wood, divide the interest and make a house appear disorganized. If one material prevails and the other is used merely for emphasis, unity results. The different types of building material supply varying amounts of emphasis, and just as the interior designer plans where to use plain surfaces and where to employ pattern, the architect considers the possibilities of brick, wood, and stucco, and finds that some materials supply all the emphasis that is needed in an exterior, while some are so plain that color and pattern may be added for additional emphasis. When stones or bricks are joined by lines of mortar a pattern is

formed which will be more or less emphatic, depending upon the contrast between the building material and the mortar. The most successful houses are those in which there is no striking difference between the color of the mortar and the brick or stone, and in which the architectural design is kept simple, in order that the texture and the color of the walls may supply the emphasis. Walls of shingles or clapboards have less pattern than most masonry walls, and if they are stained or painted white or a neutral color, make pleasing wall surfaces. If stucco is used to finish the walls of a house, its color and texture should be carefully selected. The most desirable texture for the average house is one which is neither so rough that it will appear too emphatic for the size of the house, nor so smooth that it will be glaring. Since walls are backgrounds they should be simple, and all exaggerated treatments, such as conspicuous marks of the trowel, should be avoided. A moderate amount of vibration of color and of light and shadow which comes from slight irregularities in texture is desirable for the stucco wall. (See Fig. 10.)

Natural earth colors make good cement walls, and the warmer, lighter colors, such as the dull earthy yellows, are more pleasing than the cold grays. Undesirable colors for stucco houses are red, bright pink, strong yellow, dark browns, and bluish grays. The advantage of using a rather light color for stucco is that it makes a good background for colored shutters or window trim, and for the planting which is to be seen against it. In designing a house of stucco, one should consider the patterns which the shadows of all projections will form against the walls, for they are important elements in design. If, for example, a roof is well-scaled its shadow will make a pleasing break against the walls, as in Fig. 201, but if it is too heavy the effect is overpowering. The broad expanse of practically plain surface makes it possible to enjoy thoroughly the shadows of trees

against the walls in summer, and the pattern of the branches in winter. A few vines growing up the side of a light stucco wall make a delightful tracery, and a color contrast that is gratifying; the color and pattern of flowers, such as hollyhocks, zinnias, or larkspur against these plain walls may form a series of delightful pictures during the greater part of the year. (See Fig. 20.)

If there were such a thing as a "well-bred house," it would not be hard to describe. Or, to state it negatively, one knows what it would not look like. It would not look like Fig. 11 in the chapter on Structural and Decorative Design. It would look very much more like Figs. 10, 62, and 79; and the reasons are evident. The quality of these houses is very largely due to the amount of emphasis that has been used. Simplicity is essential to good design in a house because of its size. A glance at the house in Fig. 11 shows how easy it is to over-emphasize decoration in a building. A comparison of the two houses in Figs. 10 and 11 shows that there must be rest spaces in the design of an exterior; for if the walls are all broken up by windows and trim there is an effect of confusion due to over-emphasis. If the wood trim in Fig. 11 had not been painted white and thus made to contrast so emphatically with the house, its poor design would not have been so conspicuous. This leads to a very important principle in house painting. *Where the openings and the trimmings of a house are not beautiful, and particularly where they are not perfect in proportion, they should be painted the same color as the body of the house.* Or, if for some reason it is particularly desired to have them another color, they should be practically the same value (degree of lightness or darkness) as the house itself. Never pick out shapes on the walls of a house with a contrasting value unless those shapes are really beautiful; and even then be very careful that there are not so many of these openings that they will create too much emphasis.

Some well painted trims are shown in Figs. 80, 109, and 196.

Since it is usually desired that the center of interest of the house should be the entrance, let us note the various ways in which it may be emphasized. The traditional methods seek to give the appearance of increasing the size of the doorway by the use of columns, a hood, or a small stoop. Vines also give emphasis, as well as a softening, informal effect. The walk leading to the entrance helps to emphasize it; and additional emphasis may be secured if the walk is supplemented by good planting. This may consist of a border of flowers or a low hedge which follows it, or it may be a small group of shrubs at the beginning of the walk, and another near the house.

Emphasis in planting. There is the same need for simplicity in the design of the planting around the house as applies to the design of the house itself. The effect must be simple even though many trees, shrubs, and flowers are desired. Simplicity can be secured by grouping the plants at structural points; specifically, around the base of the house and out at the boundaries of the yard, in much the same manner as that in which the Van Eycks grouped their figures in the "Adoration of the Lamb." (Fig. 124.) A yard, however, must have much more empty space than is needed in a picture. Well planted grounds, whether large or small, need plenty of clear, open spaces. Plants or bushes and flower beds which are scattered about over the lawn over-emphasize a yard to such a degree that it seems fairly to bristle, and it does not make an appropriate setting for the house, which should be the center of interest.

Emphasis in interior design. Nowhere are the effects of over-emphasis so trying as in the home. In rooms in which people remain over long periods of time, a subtle type of decoration can be appreciated, whereas a more dramatic decorative scheme is suited to rooms in which

one spends but a few moments. In the tea room a dramatic scheme is enjoyable, but not many would care to spend their lives in an atmosphere which is so stimulating. The amount of emphasis suitable for interiors is, of course, most difficult to state definitely. It must vary with the room, and with the people who live in it. But although we cannot make an exact recommendation, we know what has been successful in average cases. The proportion of emphasis to rest space in a room should be approximately the Greek proportion of two parts to three,—that is, two parts of attraction in pattern and three parts of empty space in which to rest the eye. This does not mean that with two pieces of figured upholstery fabric, one of which had a quiet surface pattern of two tones, and the other a striking design in strong color, we should use two parts of either one against three parts of plain background. It means that a very much smaller amount of the striking pattern would be used as compared to the simpler pattern, because as a whole there should be two parts of attraction, not of pattern.

Distribution of emphasis in a room. With a definite proportion to work with, the next thing that the designer must decide is where and how to make the distribution. There are many possibilities, which is exceedingly fortunate; it gives one the opportunity to express his individuality fully, and does away with the sense of being held down by rules. Suppose that one decides to take three parts of plain space in walls and rug. That leaves the possibility of selecting figured draperies and furniture covers, pictures, and some decorative objects, so adjusted in their various attractions that the sum of them all will be less than the restfulness of the background. If the walls have a good pattern and the rugs have some design, then it would be essential to choose plain drapes and plain furniture covering, with the possibility of using a bit of pattern in a cushion and some decorative details. The first plan of plain walls and floor is much

more apt to be successful than the one in which patterns are used in walls and rugs, because there is an opportunity to make more individual choices in the smaller things. Figs. 23 and 206 show different ways of working out the

FIG. 132.—Confusion results from the use of a background which is as striking as the objects placed against it. The candlesticks on each side of the vase have almost lost their identity because of the overpowering pattern of the background. The vase is a large solid mass, darker than the general effect of the background, and so it can be seen, but its design cannot be fully appreciated because the designs around it are so emphatic.

plan of two parts of pattern to three parts of plain space. In Fig. 206 the walls have an inconspicuous stripe giving the effect of plainness, the rug is plain, and emphasis is placed in the draperies, the chair cover, and in the objects

FIG. 133.—Emphasis is gained by having the background less conspicuous than the objects shown against it. Notice how the shape as well as the detail of each object can be fully appreciated against a plain background. The result is forceful, dignified, and beautiful.

on the mantel. In Fig. 23 there is a suggestion of texture in the paper but no outstanding pattern, and the furniture covering is plain, while pattern has been used in the draperies and rugs. Fig. 132 shows that figured paper makes a poor background if one wishes to enjoy the objects placed against it. Would many people notice the pair of seven-branched candlesticks on each side of the vase? The candlesticks do not have a chance for attention against this striking background, and even the people in this room would be eclipsed. It would not be possible to get enough plain space into a room to keep the Greek proportion of two parts of emphasis to three parts of rest space if this paper were used. Compare this with Fig. 133, where the emphasis is placed as more people enjoy seeing it. The walls and floor are plain, and so all the beauty of the furniture, the pictures, and the decorative objects can be enjoyed. Since there is a limit to the amount of pattern which should be used in a room, one should decide carefully as to where it will be enjoyed most, and then be sure to subordinate the other things in the room so that the pattern may be appreciated.

It may be interesting to know that most good decorators use the following plan for the relative importance and amount of emphasis to be given to the various articles used in house furnishing. The observer should be conscious first of the decorative objects, such as the books, pictures, or wall hangings, and lamps, candlesticks, vases and the like; second, of the furniture; third, of the walls; fourth, and last, of the floor. There will be one chief center of interest in each room, such as the fireplace with its decorative accessories; or the table with its fittings; or the bookcases. These will vary according to circumstances, but the chief center of interest should stand out distinctly; then other and less important groups will be formed to balance the room. Furniture and decorative objects must be grouped to form these

centers so that the interest will not be scattered. Objects of interest, including pictures, should be placed on the level of the eye, or below. Never hang pictures over doors and windows, because they cannot be seen well, and they attract attention to the ceiling, which is not a place to emphasize.

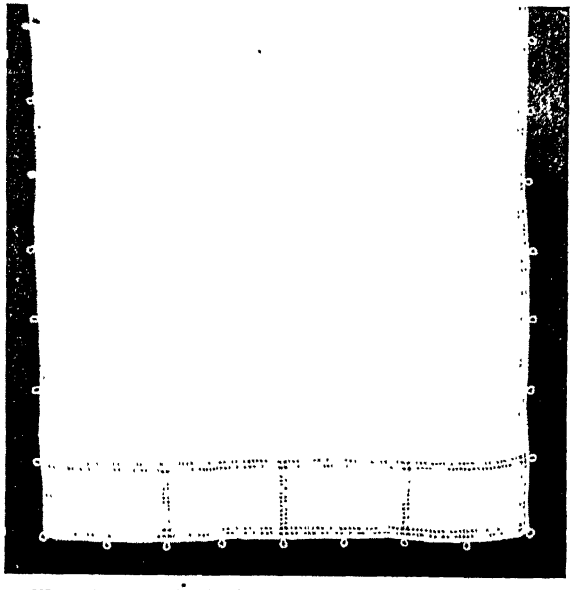


FIG. 134.—There is simplicity in the note of emphasis shown in this table runner, and it makes a suitable background for the objects which will be used upon it.

Medallions in rugs, because they are unusual shapes, create a strong center of interest, and call attention to the floor. They are not recommended, because the floor is the last place which should attract attention.

As in the exterior of a house, the rooms should have enough rest space to give an effect of reserve, and enough emphasis, used adequately yet sparingly, to show imagination and individuality.

Emphasis in household linens. So one applies this principle of emphasis to the largest objects and to the smallest;

to the walls and to the vases; to the furniture, and to the things to be used with it. Where in this scheme should the linens be placed? Are they background, or are they decoration? If a background is something against which other things are seen, then surely they belong to the background, for they are used on a chest of drawers or a table, and have objects placed upon them. Because there is a certain amount

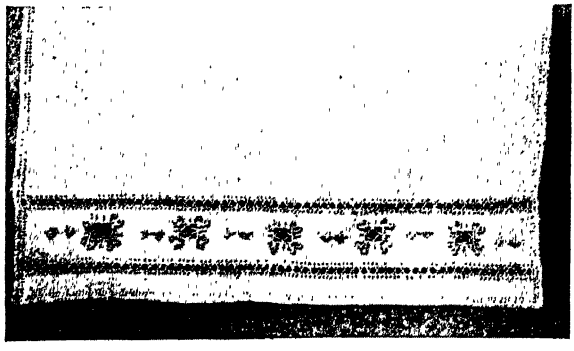


FIG. 135.— The addition of decoration has given an effect of richness to this runner. Observe, however, that it has been used with moderation.

of interest in the texture of household linens, such as the napkins and tablecloths, they are usually finished with just a narrow hand-sewed hem, and the interest is attracted to the texture and the pattern of the fabric. Sometimes a decorative edge is desired on a runner or a doily as an additional note of interest, and such a design is shown in Fig. 134; or, going further in the amount of decoration, one might use a cloth with as much design as is seen in Fig. 135; but one should never choose to let pattern run riot as it has done in the linens shown in Fig. 136.

Emphasis in dress design. In dress the idea of background is just as important as it is in any other problem where taste is involved. Here the person is the chief center of interest, and the clothes are the background. For that

reason the amount of emphasis that can be used in dress depends, first of all, upon personality, and, second, upon the occasion for which the clothes are chosen. Some people are so striking, so brilliant and dashing, that they are able to appear to advantage against a great deal more emphasis in their dress than the average person. Regardless of per-

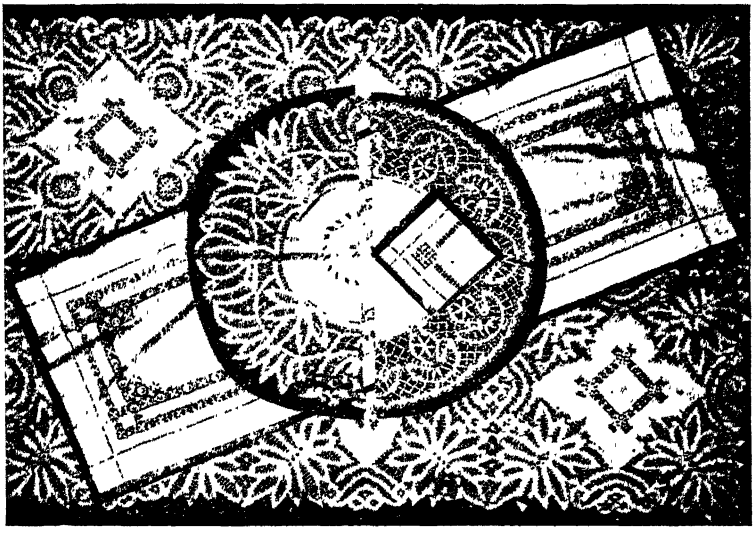


FIG. 136.—Needlework has been used here for the sake of display. These pieces are ostentatious and would bring too much emphasis wherever they would be used.

sonal qualities, however, the law of harmony—suitability to occasion—sets certain standards which are carefully observed by people of taste; for example, to meet these standards, street and business clothes should be quiet in effect and conservative; sports clothes may be as striking as one's personality will permit; the amount of emphasis in evening dress for women will be governed by the personality, the income, and the occasion; clothes which must be seen repeatedly by the same group of persons should be less conspicuous than those which are to be seen once or

tume centered upon a patch of white or colored hosiery. Remember that by the use of any of the five means stated under "How to Emphasize" attention is attracted and centers of interest are created; therefore it is well to con-

FIG. 139.—*A*. Emphasis poorly placed. The lines of this dress are so striking that it does not need much, if any, additional emphasis. If any decoration were to be used it should follow some line already established, as at the neck and sleeves, or at the bottom of the tunic. The spots used here make the waist and skirt equally important and cause the eye to jump restlessly from one point to another. *B*. Here the emphasis is well placed, for it stresses the structural lines of the dress. Notice that the main center of interest comes near the face, that a secondary note has been placed on the skirt, and that there are minor accents on the sleeves.

sider what one wishes to emphasize, and proceed accordingly. For example, if a woman has an ungainly walk or unattractive feet, she should have nothing conspicuous on her skirt, either at the hips or near the hem; and she should select only the most conservative types of shoes.

While the ideal dress is the one which has the chief center

of interest at the face, there are many other arrangements which are very successful. Sometimes the important note of emphasis is at the waist line, and, to complete the design, an echo of it is brought up around the neck for a sec-

FIG. 140.—LUCREZIA PANCIATCHI, by Bronzino. (*Courtesy of Anderson, Rome.*) A beautiful 16th century costume which shows the main center of interest around the face, with subordinated centers at the belt and wrists.

ondary center; or there may be a decorative band at the bottom of the skirt, and a repeating note around the face, while the rest of the dress is kept very simple; again, the sleeves may be chosen as the individual note, with minor centers at other places on the dress. The important thing is to choose one place for the main center of interest and

keep the rest of the dress subordinated to that. And, above all, one must be sure that the dress as a whole is not too striking in its emphasis for the person who is to wear it.

Scattered forces of equal importance, as seen in Fig. 139A, give a "hit and miss" effect which is not pleasant. Compare this design with Fig. 139B, in which the collar and vest, through their line and the embroidered pattern, carry the eye to the face, which is the chief attraction. The skirt takes second place in the dress design, and the sleeves are third. Notice that the emphasis in this dress has been placed in consistent positions—at the neck, waist, bottom of the skirt, and sleeves.

The Sixteenth Century costume in Fig. 140 shows how a dress may help to enhance the beauty of the wearer. The contrast of the light yoke has centered the interest near the face so that one is more conscious of the wearer than the dress. When a costume is a background to this extent, it has fulfilled one of the most important requirements of good dress design. The belt has made a second and subordinate center of interest in this costume, and the lace at the wrists, which makes a transition from the dark sleeves to the light flesh tone, brings a third and even less emphatic point of emphasis. The jewelry which this lovely, aristocratic young woman is wearing is simple for the period in which she lived, but to-day one would use only one of the two necklaces. Jewelry should be used very sparingly, and then only when it helps to complete a costume. This means that all jewelry should be chosen for its art quality rather than for its cost. When beads, necklaces, or brooches are worn against figured or embroidered materials the same effect is produced as when the candlesticks in Fig. 132 are seen against the figured background. To quote the words of a lecturer on Interior Design, "Do not forget that a spot on a spot makes a blur."

In a word, success in dress design depends, more than

anything else, on knowing what to leave off. Simplicity should be the aim, with just enough emphasis to keep the design from being commonplace. Nothing in the way of emphasis should be added to a dress unless it is clearly needed to refine and beautify it.

Emphasis in store displays. In planning store displays, the window decorator has three groups of people to attract:

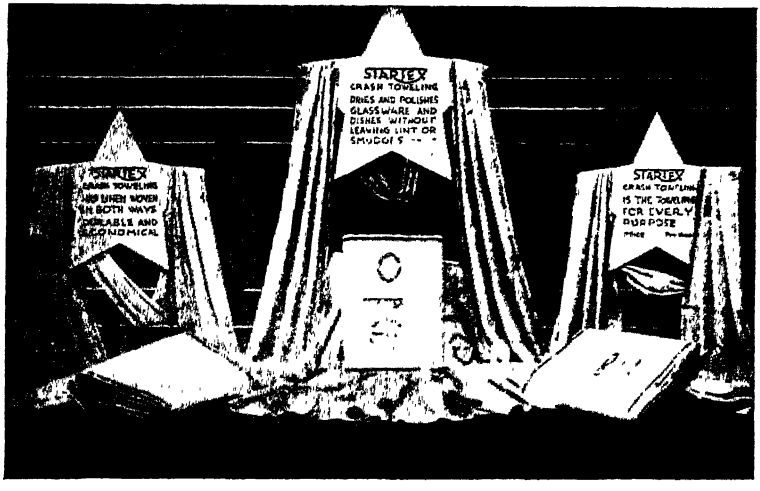


FIG. 141.—An example which illustrates the art principle that every arrangement should have one main center of interest, with every other part subordinated in proportion to its importance. Emphasis has been gained by grouping objects and leaving enough plain space around each group to force it.

(1) The people across the street.
(2) Those who are passing in front of the window.
(3) Those who have stopped to examine the display.

For the first class there must be one simple forceful effect which will attract the attention and make the pedestrian wish to cross the street to see the rest of the display; that effect would correspond to the chief center of interest as stated in the definition of emphasis. Those who are passing will be attracted by this one big note, and also by the items

of secondary importance. For those who stop there must be some interesting details.

Three very different examples of emphasis are shown in Figs. 141, 142, and 143. In Fig. 141 the display can be seen readily; it is well organized, with a main center of interest

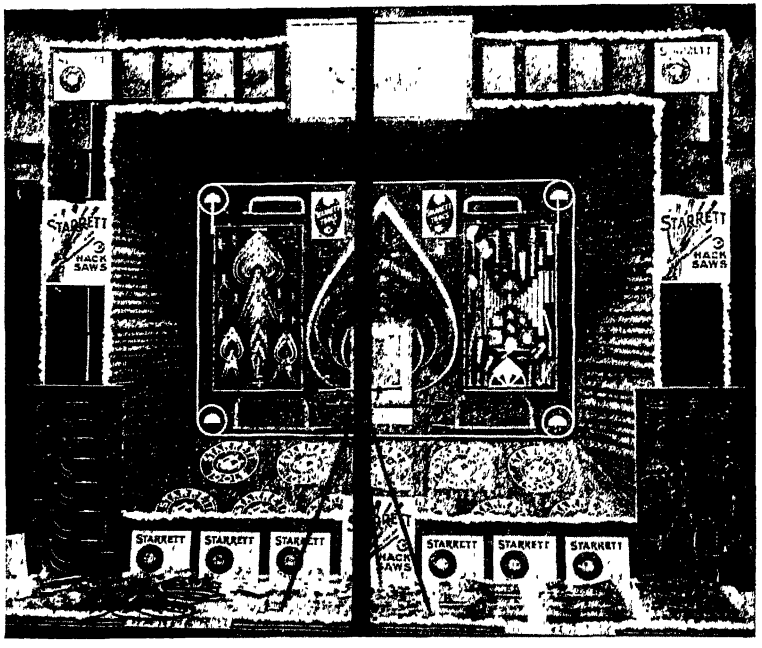


FIG. 142.—(*Courtesy of the Warner Hardware Company, Minneapolis.*)
In this display a great number of small objects have been well grouped to make one main center of interest and several subordinate centers. The main center has been made more emphatic by the use of plain space around it. In spite of the great mass of detail this window is easily seen because it is well organized.

and a subordinated center on each side. The background is simple and it contrasts in light and dark with the goods which are displayed. This value contrast has been shown to be one of the quickest ways of arresting the attention. The designer of this window had large objects to work with, and that made his problem relatively simple. The designer

of Fig. 142 had a much more complicated task, and yet he has produced a most cleverly organized arrangement. He has massed the great number of small objects into units of different sizes, and has left enough plain space around each group so that it will not harm or be harmed by its neigh-

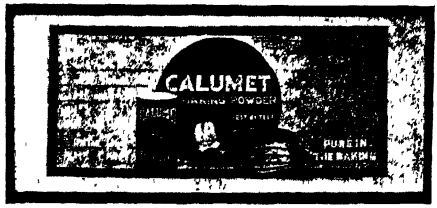
FIG. 143.—When the eye encounters many objects of equal importance it does not see any of them clearly. There is a loss of power in this window because the objects are scattered, and there is no main center of interest.

bors; then he has carried out this same plan within each group so that everything fits into a scheme, and in the end one sees large designs made up of groups which, in turn, are made up of separate articles each of which is easily seen. Compare with this the window in Fig. 143. There are probably fewer separate objects used here, and yet the effect is a blur. This shows what happens when small objects are

not grouped to form centers of interest, and when there are no empty spaces in which the eye may rest.

It should be recognized that in all store decoration the

A.



B.

C.

FIG. 144.—*A.* The force of this advertisement has been gained by the unusual line of the pen. *B.* The emphasis here is gained through the contrast of light and dark. *C.* This poster appeals to the observer through the pattern in the picture as well as the contrast in color and in light and dark.

merchandise is the important feature. Backgrounds and any decorative accessories, such as flowers, trellises, etc., should be used merely as minor notes to give a touch of interest; just as soon as they become too emphatic the appeal

of the merchandise is lost. Decorators should realize that the store gets no return from its backgrounds, and for that very practical reason they should make them add to, rather than detract from, the merchandise. Lattice work designs, besides showing lack of rhythm because of their distracting movement, are extremely emphatic. Every time two lines cross in an X shape, the point where they intersect becomes a center of interest, and the dazzling effect detracts from the display. Mirrors used as backgrounds are apt to be distracting, for they reflect all street scenes and lights; if many objects have been placed in the window, the reflection doubles the number and makes for confusion.

Emphasis in advertising. The advertiser recognizes two facts:

(1) That nobody deliberately starts out to read his advertisement.

(2) That he has only a limited amount of time in which to tell his story.

The amount of time he may have varies with the type of advertising he is doing; for example, the bill-board must be positive enough to tell its message almost instantly to the people who rush past in street cars and in automobiles. The posters in Figs. 144 A, B, and C are quickly seen, and it is interesting to note that a different means of gaining emphasis has been used in each one. In A the attention is caught by the forceful and unusual line of the pen, which leads directly to the name. In B the thing to be advertised has been made to contrast in value with the background, and plenty of space has been left around it to separate it from neighboring attractions. In C there is value contrast and plain space; there is also an entertaining pattern in the picture, and a further appeal to the eye through the use of color.

While the bill-board and the car-card need a dramatic note, the newspaper advertisement may be much quieter and more dignified in effect, for it has more time in which to make

its appeal. Nevertheless, any advertisement must have a certain amount of emphasis in order to arouse interest; too mild a statement will pass unnoticed, and so even the quiet

FIG. 145.—(*Courtesy of Purina Mills.*)
Confusion results from the misuse of dark and light contrasts. The equal amounts of light and dark, and the equality of sizes in the design make the background as forceful as the advertising material, and prevent any definite centers of interest.

message wants something positive about it. When there is much competition for attention that positive note must become more compelling. But over-emphasis is as serious as under-emphasis, as is seen in the advertisement for breakfast food in Fig. 145. So much force has been used that the

result is bewildering. When very strong contrasts, such as black and white, are employed they must not be used in equal

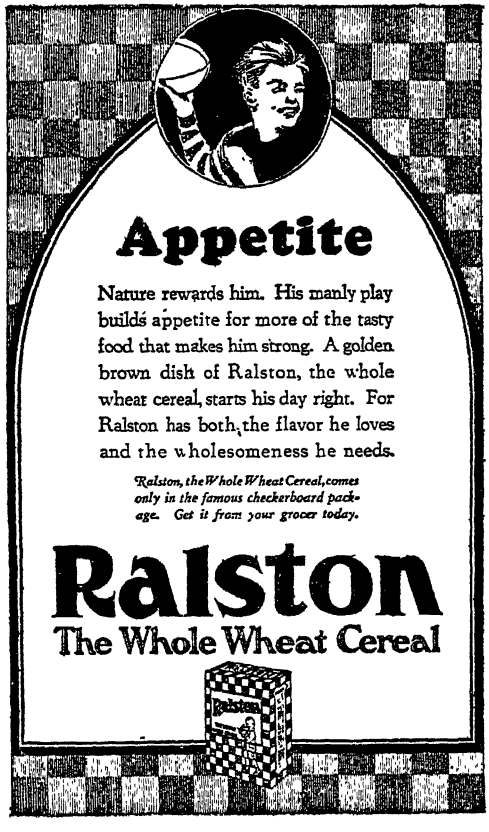


FIG. 146.—(*Courtesy of Purina Mills.*)
Comparing this illustration with Figure 145, which was made twenty years earlier, one sees that the modern advertiser recognizes that too much emphasis fails to emphasize. Notice how easy it is to see this advertisement, and to read its message. Here the square blocks in the background do not contrast so strongly, and enough plain space is used around the name to make it the main note of emphasis.

amounts, because they become perplexing and disturbing, as in this advertisement. Compare with this the advertisement in Fig. 146. These two designs are very similar, but

in the latter the designer has emphasized the name of the breakfast food by placing a plain background behind it, and he has eliminated the confusion of the checkerboard design by keeping the darks and lights close together. This clearly is better advertising than Fig. 145.

Where to place centers of interest. The diagrams in Figs. 147 to 152 will be found useful in determining where to place

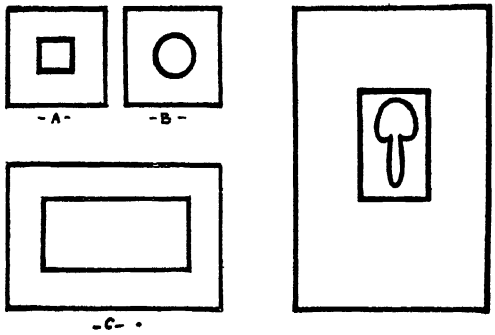


FIG. 147. A, B, and C. Objects which are to be seen from all sides may be in the center of the space on which they are placed.

FIG. 148.—The center of interest looks well if placed slightly above the exact center when it is to be seen from one direction, as a mounted picture, a show card, or a design on a printed page.

attractions. In order that each person may adapt this plan to his own field of work, the drawings are kept abstract and spots are used, so that they may be thought of as representing any object one may wish to use.

If an object is to be seen from all sides, it should be placed in the center of the space, with borders of equal width on all sides. This is agreeable because the object then looks the same from any direction. (Fig. 147.) Typical examples are shown in the placing of a mat on a table, or a bowl of flowers on a mat.

When a design is to be seen from one direction, Fig. 148 suggests the appropriate placing for the center of interest. In this case the lowest margin is wider than any of the others in

order to overcome the optical illusion which makes objects in this position appear as if they were dropping. (See Law of Margins, Fig. 165.) Applications of this kind of placing are used in designing or mounting compositions, or planning a page of written or printed matter. The size of the margins would vary according to the emphasis of the object which is being used. If it is very striking, it needs a large mount, as

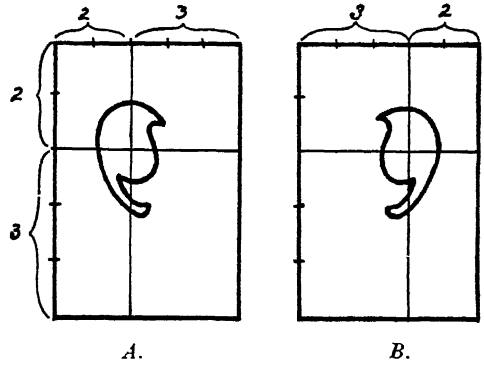


FIG. 149.—*A*. If the lines of the center of interest have a tendency to carry the eye toward the right the most interesting position for it to occupy would be slightly above the center and a little toward the left. This plan may be used when placing an object against a background or an illustration on a show card. *B*. When the eye is carried toward the left it is agreeable to have more background space on the left side.

shown here. A sheet of written or printed matter would follow the same relative proportions, but the margins would be smaller. When planning compositions it should be remembered that the greater the emphasis of the thing to be used, the larger the plain space around it should be.

Figs. 149A and B suggest positions for centers of interest where the lines of the object carry the eye off toward the right and toward the left. It will be observed that the eye enjoys a free resting place on the side toward which it is being led. (See Fig. 260.) The positions for these centers of interest were determined in the following manner: each

side of the mount was divided into five equal parts; the relation of two parts to three results in beautiful spacing; therefore drawing lines through points 2 or 3 will make interesting divisions in the rectangle; the points where these lines cross each other give four points on which attractions could be placed. It is not necessary actually to measure these spaces; an approximate division will be as pleasing as an accurate

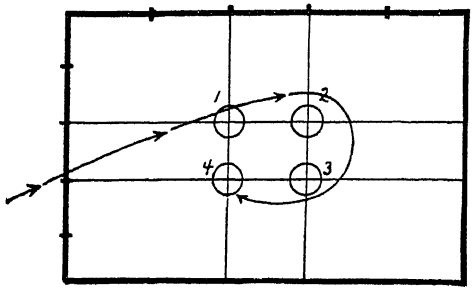


FIG. 150.—In looking at a printed or written page the eye has a natural tendency to enter at the side and to travel in the direction indicated by the arrows. Under ordinary circumstances point 1 would be the most favorable position for a center of interest, point 2 next best, then points 3 and 4.

one. To state it briefly, *the center of interest should be above the mechanical center, and to the left or right,* depending upon the direction in which the lines of the composition carry the eye.

Fig. 150 shows all the spots which may result from the foregoing method of locating points of interest, and the arrows show the path which the eye naturally takes as it looks at a written or printed page. It will be seen that, under ordinary circumstances, No. 1 is the first, and therefore most emphatic position; Nos. 2, 3, and 4 follow in the order named. There are conditions which would change the relative importance of these positions, such as in Fig. 144A, where the shape of the object is such that it carries the eye involuntarily in some definite direction. However, in any case, in the placing of one spot on a sheet it is usually well

to avoid the mechanical center, and raise it either to the right or to the left, or lower it to the left or right, depending upon the dominant lines of the composition. If the arrangement has no special direction, the most successful position for it will be at the left, and slightly above the center.

Fig. 151 illustrates a method for placing three centers of interest in a composition. It is often necessary to group

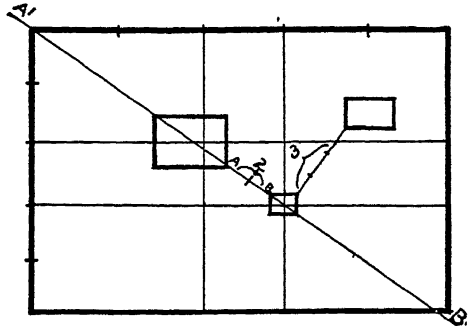


FIG. 151.—A simple method of placing centers of interest for informal balance. Two objects may be placed at points corresponding to 1 and 3, or 2 and 4, on FIG. 150; the third object may be placed anywhere except on the horizontal or vertical lines passing through the two spots, or on a line connecting the centers of the two spots (A'B'). Counting the distance between the first two spots as two parts (AB), the third spot may be placed three parts away.

three objects, and if one knows this simple plan it will help to suggest arrangements for some of the puzzling problems in informal balance, such as are found when one is drawing or making flower arrangements, making designs for embroidery, arranging groups of objects on a table or in a show window, or placing trimming on a hat. The same plan as for Fig. 150 was used to start with, and two of the objects are placed at points 1 and 3, although 2 and 4 could have been used instead. These relative positions are chosen so that both objects will not be on the same straight line. In this diagram (Fig. 151) 1 and 3 were selected for the first two spots. In placing the third spot one should avoid the

following three classes of lines: (1) Any horizontal line or (2) vertical line running through either of the first two spots, because the arrangement would be monotonous if there were too many parallel lines; (3) the diagonal line which runs through the center of the first two spots, for then there would be a lack of rhythm because the eye would immediately be carried out of the picture. It can be placed any-

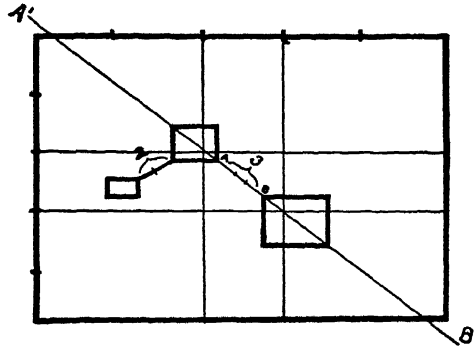


FIG 152.—This arrangement is similar to FIG. 151, but in this case the distance between the first two spots (AB) has been considered as three parts, and the third spot placed two parts away.

where in the space except on the lines mentioned. The next step is to decide how far away to place this third spot. A knowledge of proportion tells one that it should not be the same distance from either spot (1 and 3) as the space between 1 and 3; and that a position which is more than one-half this distance, but less than two-thirds will be interesting. If the distance between spots 1 and 3 is considered as constituting the two parts, then the third spot will be in an interesting position if it is placed about three parts away. (Fig. 151.) If it seems desirable to have it closer to the other, the space between 1 and 3 can be considered as the three-part of the ratio, and the third spot would then be placed only two parts away, as shown in Fig. 152. In a three-spot arrangement one of the spots will

be the chief center of interest, and the other two will be subordinated.

SUMMARY. There are certain guiding principles in emphasis which apply to all problems, and which may be stated as follows:

(1) There should be one chief center of interest in every arrangement.

(2) The mind and eye can grasp only a certain amount of emphasis at one time; if more than the necessary amount of force has been used the result is confusing and the designer has defeated his purpose.

(3) If an object is to be fully appreciated, plenty of plain background space must be left around it.

(4) Backgrounds should be less emphatic than the objects which are to be seen against them.

CHAPTER VIII

HOW TO KNOW COLOR

In order to understand color and to use it beautifully it is necessary to learn enough color theory to understand color language and to know why one should choose certain colors rather than others. Most people can copy color schemes in a "recipe" manner and their results may look well, but they do not feel confidence in themselves because they have done nothing to train their color judgment.

Of the many color theories which have been worked out, two are in very common use. These are generally known as the "Prang System" and the "Munsell System." It seems advisable to explain both theories, so that the reader who understands and has been thinking in terms of one may follow the familiar plan and nomenclature. For the sake of avoiding confusion in the mind of the beginning student, the Prang theory only will be used when explaining the properties and the classes of color. At the end of this section, "How to Know Color," the Munsell system will be explained, and the fundamental differences between the two systems noted. When speaking of colors in "How to Use Color" we shall employ the popular name for the color, with the Prang and Munsell symbols which represent it.

How colors differ from each other. There are three properties or qualities which may be called the *dimensions* of color, which are just as distinct from one another as the length, the breadth, and the thickness of an object. Consequently colors may differ in these three ways:

(1) In their *warmth* or *coolness.* (This dimension is the HUE or the *name* of the color.)

(2) In their *lightness* or *darkness*. (The VALUE of the color.)

(3) In *brightness* or *dulness*. (The INTENSITY or CHROMA of the color.)

All three of these dimensions—hue, value, and intensity—are present in every color, just as every object has length and breadth and thickness.

HUE (SYMBOL H). *Hue* is the term which is used to indicate the *name* of the color, such as red, blue, or green. The difference between blue and green, then, is a difference in hue. Just as soon as green turns bluish it has changed its hue and would be called blue-green instead of green.

If a prism or a diamond is held in the sunlight, which is a source of all color, the white of the prism or the diamond will be broken down and separated into all the colors of which white light is composed. If white light is broken down against a white background a spectrum appears in which all the rainbow hues are spread out in a band. These colors, just as they appear in the spectrum are commonly called *normal colors*.

The neutrals,—black, white, and gray. Black results from the absence of color. A surface which absorbs all color will appear black. White is a combination of all the colors. A surface which reflects all colors will appear white. Gray is a neutral which results from a mixture of pigments. Pigments, unlike light rays, are impure, and when mixed they leave a gray sediment instead of producing a clear white. (See p. 196.)

The classes of color: Primary, Binary, and Intermediate. All colors may be obtained by mixing in various proportions three fundamental hues: red (R), yellow (Y), and blue (B). These are called the three *primary* colors, because they are the elements in the use of pigment. They are the only hues in pigment that can not be obtained by mixing other hues. (See Fig. 153.)

When two primary colors are mixed in equal amounts a different hue will result. This new hue is called a *binary* or *secondary* color. There are three of these binary colors,—purple (P), called violet (V) in the Prang System, made by mixing red and blue; green (G), made by mixing yellow and blue; and orange (O), from red and yellow. (See Fig. 154.)

The primary and binary colors together are commonly called the *six standard colors.*

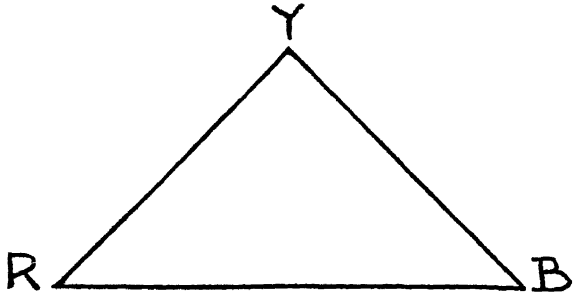


FIG. 153.—The three primary colors, Red, Yellow, and Blue.

When a primary and a binary are mixed in equal amounts an *intermediate* hue results. There are six of these intermediate hues,—yellow-green (YG), blue-green (BG), blue-purple (BP) or blue-violet (BV), red-purple (RP) or red-violet (RV), red-orange (RO), and yellow-orange (YO). So far the twelve hues which constitute the typical color chart have been placed. (Fig. 155.) However, there is room between each one of the intermediates and its neighbor for an indefinite number of gradations. For example, one can easily imagine a color that comes halfway between the blue and the blue-green on the chart. These hues may be indicated by repeating the name of the more conspicuous one. Thus, the hue called Peacock Blue, which is between blue and blue-green, would be called blue-blue-green (BBG). Next on the spectrum would appear the blue-green (BG); then green-blue-green (GBG), and green (G). Obviously,

it is possible to make more and more detailed charts recording steps between the standard and intermediate hues.

Popular names for colors. It will be noted that many familiar color names do not appear in this list of hues. Tan and brown, pink, lavender, henna, beige, and atmos-

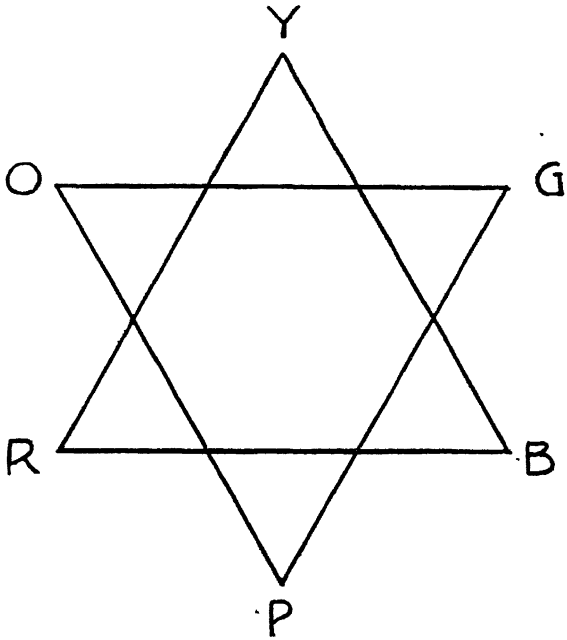


FIG. 154.—The six standard colors, consisting of the three primary colors, Red, Yellow, and Blue, and the secondary or binary colors, Orange, Green, and Purple (Violet).

phere are only a few of the names that are given to different values and intensities of the standard and intermediate hues. Every season brings a new list of names for the fashionable colors, but each of these can be described accurately by using the name of the hue which it matches in the spectrum, with its correct value and intensity. To illustrate: Tan and brown are the names commonly used

for the duller tones * of yellow, yellow-orange, orange, and red-orange,—the tans being the lighter tones, or tints, and the browns, the darker tones, or shades; pink is a light red; and lavender is a light purple, light red-purple, or light blue-purple.

How to change hues. If a person wishes to change the hue of a color he will mix with it some of a neighboring or adjacent hue. For example, some red added to blue paint will change its hue to purple. A change of hue may be accomplished by dyeing, or by putting a semi-transparent fabric over another. Blue can be turned toward purple by putting red or red-purple under or over it, and toward green by the use of yellow or green. Some very beautiful effects may be obtained if this is understood. Frequently a slight change of this sort will make an unbecoming hat or dress entirely satisfactory.

Warm and cool hues. Imagine a band of spectrum colors brought around to form a circle, as shown in the outer ring of Fig. 155. Place yellow at the top, in the center, and purple will fall directly opposite on the same vertical line. The hues will fall into two large groups, one on either side of the vertical line. The colors at the right of the line near the blues are the cool hues, and those on the left side of the vertical line around red and orange, are the warm. Red and orange are the warmest of all the colors, and they are also the most advancing and the most conspicuous. Blue and blue-purple are the coldest hues, and they seem to recede and to become inconspicuous. Green is between heat and cold, but it gets warmer as it grows yellowish, and cooler as it grows bluish. This quality of warmth and coolness is the most important thing to remember about hues. There is a harmony among the warm colors because they are related to

* "*Tone*" is a general term which may be applied to the hue, the value, or the intensity of a single color or a group of colors. It is the most inclusive term in color use.

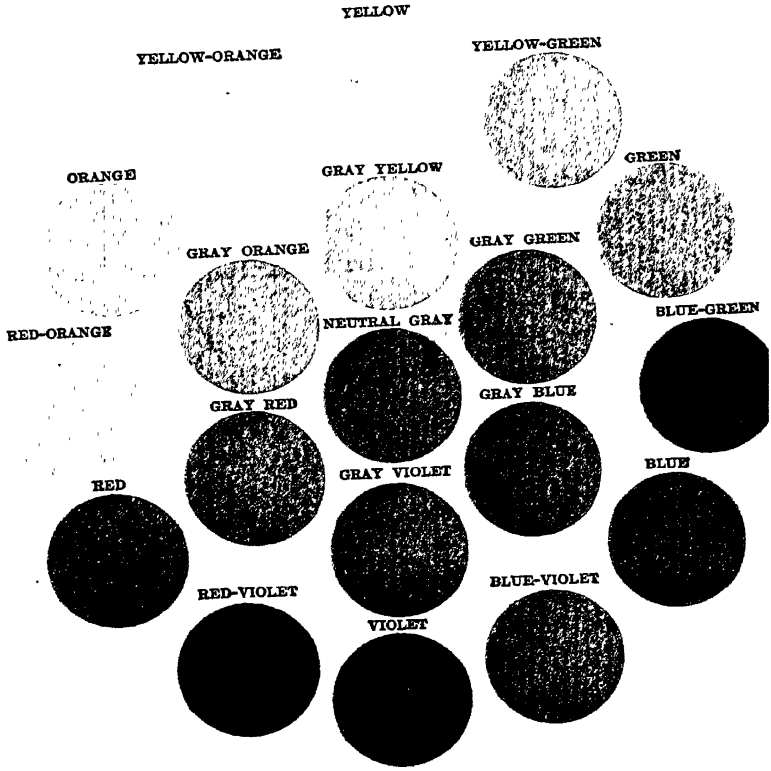


FIG. 155.—The Prang Color Chart.

each other, and the same harmony or family quality exists among the cool colors; but the warm and the cool colors are strangers to each other. As white complements black, and heat complements cold, so are warm and cool colors complements; they contrast rather than harmonize with each other.

Advancing and receding hues. The warm hues, which are advancing, will make objects appear larger and nearer to the observer, while the cool hues, which seem to recede, will appear to reduce size. The landscape gardener may create the illusion of a larger space than he actually has to work with if he plants his bluish flowers in the background, and his red and orange flowers in the immediate foreground. If he desires to bring some distant point nearer, he can do it easily by planting flowers or shrubs which show the warm, advancing colors. The stout woman needs to note this effect of color. If she wishes to conceal her size she should select the most becoming of the receding colors and leave the conspicuous, advancing hues to the small, slender figures.

Hues appropriate to the seasons. Certain hues seem to be particularly appropriate to the different seasons of the year, and window decorations and advertisements, stage costumes and settings, may be made to suggest the seasons if colors are chosen according to the following plan:

Spring—Starting with blue, through blue-green to green.

Summer—Green, yellow-green and yellow, approaching a yellowish orange toward the end of summer.

Autumn—Orange, red, and red-purple.

Winter—Purple, blue-purple, and blue.

Effect of different hues. Hues have a decided effect upon one's feelings, and it is important to know how people react towards color schemes. People tire more quickly of the six standard colors—clear green, yellow, orange, red, purple, and blue—than they do of the intermediates, yellow-green, yellow-orange, red-orange, red-purple, blue-purple, and blue-

green. Warm colors are more cheerful and stimulating than cool colors, which are calm and restful. Too much warm color may be exciting and "loud," while too much cool color may be depressing. The experience of two tea-rooms designed to appeal to the same class of patrons illustrates this point. One tea room had walls of a light, dull yellow-orange (sand-color) and sparkling red-orange candle shades. The other room had cold, light gray walls and purple candle shades. In the yellowish room conversation seldom lagged and the people were cheerful. When the same people entered the gray and purple room they began to whisper. Although the gray room had an ideal location, served excellent food, and charged the same prices as the yellow room, it failed after a very short time.

Summary of hue. A knowledge of hue, the first dimension of color, should enable the color user to accomplish the following:

(1) Give the color its proper name.

(2) Recognize related colors and contrasting colors.

(3) Recognize advancing colors and receding colors.

(4) Place a color in one of three groups:
   (a) In a warm group; as a cheerful, an aggressive, or an exciting color.
   (b) In a cool group, where it may be either a cool, calm, restful color, or a depressing color.
   (c) On the border line between warmth and coolness, with something of the cheer of the warm colors and the calmness of the cool.

VALUE (SYMBOL V). *Value,* the second dimension, describes the *lightness* or *darkness* of a color. There are many degrees of light and dark, ranging all the way from white to black, but for the sake of convenience in use nine typical steps are selected. Dr. Denman W. Ross gave these nine steps names and symbols which aid in visualizing them. White is the highest value, and no hue can be as light as

white. Black is the lowest value, and no hue can be so dark. Halfway between black and white comes middle value. (See Fig. 156B.) The value scale begins with White at the top (symbolized by W). The next step is High Light (HL); then comes Light (L), Low Light (LL), Middle (M), High Dark (HD), Dark (D), Low Dark (LD), and Black (B).

The value of any hue may be named by comparing it with one of the steps on the value scale of neutral grays in Fig. 156B.

If the color chart is compared with the value scale it will be seen that the hues change gradually in value with the lightest at the top and the darkest at the bottom. The table below gives the value equivalent of the normal colors:

HL = Yellow
L = Yellow-Orange and Yellow-Green
LL = Orange and Green
M = Red-Orange and Blue-Green
HD = Red and Blue
D = Red-Violet and Blue-Violet
LD = Violet

How to change values. Values can be changed by adding white or water to lighten, and by adding more pigment or black to darken them. Every hue is capable of being lowered to a value just above black, and of being raised to a value just under white. Values which come above Middle are commonly called high values and those below Middle are the low values.

Tints and shades. A value which is lighter than the normal color is called a *tint,* and one which is darker, a *shade.* It will be noted that since normal yellow comes at High Light on the value scale its tints would not be included in this chart, although they would be visible to the eye. (Fig. 156B.) Similarly, the shades of purple, which comes at Low Dark,

do not find a place upon the chart, although they too are distinguishable to the eye. (Fig. 156C.)

Effect of different values. A comparison of the colors in Fig. 156D demonstrates the part that value plays in color use. The same color has been printed against white, gray, and black. The color looks stronger against white, paler against black, and against a gray which has just the same value as its own it blends and becomes very inconspicuous. Large sums of money are wasted in advertising and in displays because this fact is not recognized, and many people dress unbecomingly and decorate their homes badly because they do not know when to choose dark, light, or middle values.

Light values seem to increase the size of an object. Small rooms may be made to appear larger if they are decorated in light colors, and a person looks larger in white or very light clothing. Besides appearing to increase the size, light values create the impression of distance. For that reason a room appears higher if its ceiling is light than if it is dark.

White and other very light values reflect color, and seem to intensify the color of the objects seen against them. (See Fig. 156D).

Black and dark values seem to decrease the size of an object. Therefore dark colors would be a poor choice for the background of a small room, and a good choice for clothing for large people. While white and light colors suggest distance dark colors suggest foreground, or nearness. For that reason dark values are particularly appropriate for floors and rugs because they give to the room an impression of stability.

Black and very dark colors absorb the color of objects seen against them. (Fig. 156D.) Black also has the power to unify colors, and helps to bring harmony into an arrangement when a number of bright colors are used together. For example, in a ball room the gay colors of the women's

gowns are harmonized by the masses of black of the men's clothes.

Close values are those which are very much alike. They are subtle and very quiet in their effect. (See Fig. 156D.) In most cases it will be found that when light backgrounds are to be used the most beautiful effects will be obtained when the general color value is rather light; when backgrounds are dark, the colors should be relatively darker, and when the background is of middle value, the general scheme should approach that tone. If the use of close values, particularly in closely related hues, is carried to an extreme, the result may be decidedly monotonous.

In house furnishing, close values are agreeable if many colors are to be used. In such cases a pleasing relief will be secured through the use of varied hues, while the similarity in values will give reserve to the color arrangement.

A strong contrast of light against dark or dark against light is more conspicuous than the strongest hue contrasts in equal values. For example, blue is the coldest color, and orange is one of the warmest, and for that reason they are as unlike as two hues could be. To test these contrasts, choose a bright blue and a bright orange of exactly the same value. The brightness of the orange must not be mistaken for its true value. (Anyone who has difficulty in determining values, should almost close his eyes and look at the colors through his lashes; there is a point when hue and brightness nearly disappear and a correct judgment can then be formed as to relative amounts of light or dark in colors.) If a piece of the blue is placed against the orange, and an equal amount of black against white, it will be discovered that value contrasts have a more striking dissimilarity than hue contrasts. Therefore, in choosing backgrounds for advertising or for window displays one should consider this property of color very carefully, for a dark background can neutralize the effect of dark objects so much that most of the selling power

of a window or a poster will be lost. If a closely related color scheme seems to lack interest, the introduction of a contrasting value will supply the accent that is needed.

Objects which contrast strongly in value with the background will silhouette, and call sharp attention to their shape. Therefore, objects that are beautiful in shape may be used against a background of very different value. But if an object is not beautiful,—if it is clumsy, or too large, and it is desired to call the least possible amount of attention to its outline, it should be placed against a background which is very nearly its own value.

Since close values produce quiet effects, and strong contrasts have the opposite result, it will be found that where many objects are to be used together, they will appear more harmonious if they are similar in value than if they show sharp contrasts.

Summary of Value. From this discussion on value, the second dimension of color, it will be seen that:

(1) White seems to add color and to increase size because it reflects light.

(2) Black seems to take away color and to reduce size because it absorbs light.

(3) Gray seems to neutralize, and the closer the value of the gray to the value of the color seen against it, the stronger the neutralizing force.

(4) White on black is less conspicuous than black on white because white reflects color while black absorbs it.

(5) Strong value contrasts have a tremendous power of attracting attention; and if not used wisely may produce a very restless and confusing effect.

(6) Close values are restful.

(7) Strong value contrasts call attention to the silhouette of an object.

INTENSITY (SYMBOL I) OR CHROMA (SYMBOL C). *Intensity* or *Chroma* is the dimension which tells the *brightness* or

dulness of a color—its strength or its weakness. In other words, it is the property which describes the distance of the color from gray or neutrality. Intensity is the quality of color which makes it possible for a certain hue—such as red—to whisper, to shout, or to speak in a gentlemanly tone.

The colors at full intensity are very striking, and form brilliant and interesting accents when they are used with discretion. The colors in the lower intensities are more subtle and one enjoys them, in general use, for large areas.

The colors in the outer circle of the color chart in Fig. 155 are said to be of full intensity because they are as bright as each color can be. As colors go down in their brightness and toward neutral gray, or no-color, they are said to be of *low intensity* or *chroma*. Changes in the intensity of a color may be brought about through the admixture of its complement, which lies opposite it on the color chart. Complementary colors complete a balance of warmth and coolness. When complementary colors are mixed they neutralize each other, and when mixed in certain proportions they completely destroy each other and produce gray or neutrality. When a color has had enough of its complement mixed with it to make it half as bright as it can be, and it is halfway between full intensity and neutrality, it is said to be one-half neutralized (½N) or one-half intense (½I). The inside circle on the color chart shows the six standard colors one-half neutralized. There are, of course, many steps in the intensity of each hue, between full or spectrum intensity and neutrality. Halfway between full or spectrum intensity and the one-half neutralized stage the color would be one-fourth neutralized (¼N), or three-fourths intensity (¾I). Going further toward the center, the half step between ½N and neutral gray is three-fourths neutralized (¾N), or one-fourth intense (¼I). These four steps form a simple basis for ordinary use, although additional fractions may be added between full intensity, ¼N, ½N, ¾N, and gray. Note that on the chart

the intensity of a color decreases as it leaves the circumference and moves toward the center of the circle.

Complementary colors in the Prang system. It is easy to find the complement of any color without the aid of a color chart if it is remembered that in order to have neutral gray it is necessary to combine all the spectrum colors. In other words, there must be equal parts of red, yellow, and blue, which are the elements of the spectrum as it would be reproduced in pigment. In order to neutralize the primary color red, for example, it would be necessary to add the other two primaries, yellow and blue. The mixture of these two primaries produces the binary, green. Therefore it may be stated that the complement of a primary is the binary which results from the mixture of the other two primaries. To neutralize a binary it would be necessary to add the primary color which does not enter into its composition. Thus, the complement of green (which is yellow plus blue) is red. The complement of an intermediate is a mixture of the complements of the hues of which the intermediate is composed. For example, the complement of red-orange would be blue-green, made from green (which is the complement of red), plus blue (the complement of orange). The complement of a primary is a binary; the complement of a binary is a primary; and the complement of an intermediate is an intermediate. The following pairs of complementary colors are seen on the Prang color chart:

Yellow and Purple—Y and P
Yellow-Green and Red-Purple—YG and RP
Green and Red—G and R
Blue-Green and Red-Orange—BG and RO
Blue and Orange—B and O
Blue-Purple and Yellow-Orange—BP and YO

If paints or dyes of opposite, or complementary, colors are mixed, they will destroy each other, but instead of making

pure white, as colored light would do, paints will leave a colorless or neutral gray. This is not a color, but a deposit which is left because of the impurity of the pigments.

Neutral gray, at the center of the chart, shows by its position that it is the result of mixing any pair of complementary colors. Neutral gray itself has a neutralizing effect, and may be used instead of a complement to dull a color.

How to make colors appear more or less intense. A color may be emphasized in the following ways:

(1) By placing it next to its complement. In the discussion of Hue it was stated that when warm and cool colors are placed side by side they force or emphasize each other. The complements have the greatest power to force or intensify their opposites when they are bright. As one or both colors become dull, the tendency to force the complement is lessened.

(2) By combining the color with a neutral color, such as black or white.

(3) By repeating near it a large amount of the same color in a lower intensity. For example, a bit of bright green surrounded with dull green would become more emphatic.

(4) By repeating in some other part of the composition a small note of the same color in a brighter intensity.

A color may be made to appear less intense by the following means:

(1) By combining a large amount of a very bright color with a dull or delicate color. These must be of the same or very similar hues. Since bright colors force their complements, the large area of bright color next to the dull color will make it seem even duller.

(2) A bright color may be made to seem less intense if it is combined with a very dull color, which is of about the same value, and slightly different in hue. To illustrate this point, let us take the problem of subduing the strong yellowish tone in the woodwork of a room. If a pinkish tan (RO ¾N LL) were chosen for the walls it would be observed that the yellow in the woodwork would be neu-

tralized by the yellow in the tan, and a slightly reddish tone would be the color that would be most apparent.

A color may be neutralized or destroyed by mixing it with its complementary color, or gray.

Complementary colors placed side by side tend to intensify each other.

Taste shown through choices of intensity. Intensity is the dimension of color which expresses the taste and refinement of the color worker, and it is the property which can give the effect of Coney Island or that of a Quaker meeting-house. Intensity, then, is a tremendous force, and bright colors need to be used most carefully if the result is to be beautiful. Whenever large quantities of color are needed for backgrounds, as for an entire costume, a rug, wall paper, etc., the color should be dull and the greater the amount of color used, the nearer the intensity should come toward neutral gray on the intensity scale. The smaller the area to be covered, the brighter a color may be. This is a law in color use, which is called "The Law of Areas." It is the foundation upon which all work in color is based.

Summary of Intensity. A knowledge of intensity, the third dimension of color, leads one to recognize that:

(1) Some colors are more forceful than others.

(2) Each color as it is seen in the spectrum is as strong as that color can be.

(3) Colors may be made duller or less intense by mixing with them some of their complementary color.

(4) Colors may be made to appear more intense by placing beside them some of their complementary color.

Color symbols in the Prang color notation. In the Prang notation a color is expressed as follows: Hue, Value, Intensity. Hue is denoted by the name or the initials of the step to which it corresponds on the value scale, such as Low Light (LL), or Dark (D). Intensity is expressed by a

fraction which shows its degree of neutralization, or by a fraction showing its degree of intensity. Thus, a red which is of fullest intensity, in the value in which it is seen on the color chart, would be written R HD Full Intensity. Red which is High Dark in value, and one-fourth neutralized, would be written R HD ¼N, or R HD ¾I.

TEXTURE. Although texture is not a property of color it plays so important a part in color use that it cannot be ignored. Surfaces which are flat or glossy, like satin or shiny paint, do not have the power to blend colors. On the other hand, textures which have more or less roughness reflect light in tiny accents, and throw little shadows. The texture of such surfaces blends colors and gives the appearance of vibrating color instead of the glassy harshness of the glazed surface. There is something mellow about the surface of a plaster wall that has sufficient texture to show a vibration of color, while the smooth and shiny painted wall gives an effect that is harsh and glaring.

Fabrics which are identical in color but unlike in texture sometimes appear to be different in hue because of the softening effect of a rough weave or a high pile. A color in a shiny texture would be more trying to the complexion than the same color used in a texture which had a soft, irregular surface.

SUMMARY. The briefest possible statement of what everyone should know about color in order to use it intelligently would include these points:

(1) All colors have three dimensions, hue, value, and intensity, each of which is capable of being changed.

(2) Hues are warm and cool; advancing and receding; and they can be changed by mixing with them a neighboring color in the spectrum.

(3) Values may be light or dark, and they may be changed by adding to any color more white or water to lighten it, and more pigment or black to darken it.

(4) Intensity may be strong or weak; bright or dull; and a color may be made duller by adding some of its complement or gray.

The preparation of a color chart and a value scale offers valuable training for the color sense. Any colored materials may be used. A good-sized diagram should be made, similar to that on which the colors on either Chart 155 or 156A are placed. There should be a space on it for each of the hues, and for four of the intensity steps of each hue. A prism should be used for throwing the clear spectrum colors on something white, and an attempt made to match these colors for the hues in the outer circle. Printed color charts are seldom, if ever, accurate. While they serve satisfactorily enough to establish certain color relationships, the student is urged to study the spectrum, which can so easily be produced by means of the beveled edge of a mirror, a diamond, or a prism. As a color is found it should be cut out and pasted in its proper place on the chart. One can paint these colors, or use papers, ribbons, silk, wool, or cotton dress goods, yarns,—anything that shows the right color. It will be found that analyzing many colors for their correct hue, value, and intensity develops skill in matching colors and in identifying them. A trained color sense is of the greatest value to everyone, and it can be secured only through exercise.

The Munsell Color System

Mr. A. H. Munsell worked out a color system which eliminates much of the guesswork in color study. It will be exceedingly profitable to the reader to study Mr. Munsell's "Color Atlas" and "Color Notation," and "A Practical Description of the Munsell Color System" written by Mr. T. M. Cleland, in order to supplement this very brief description of the Munsell color system.

The color sphere. In the Munsell plan the dimensions of color are shown upon a sphere (Fig. 157). The hues appear

around the circumference of the sphere. Values in neutral gray are shown upon a vertical pole—the axis of the sphere. The "North Pole" is White, and the "South Pole" is Black. As the hues become ligher in value they are placed higher on the sphere; as they grow darker they appear lower, toward the "South Pole." Chroma, or intensity, is represented by paths or arms running from no-color, or Neutral Gray, out to the circumference, and beyond it.

Hue (Symbol H). Mr. Munsell found that when the colors in the twelve color circle were mixed they did not produce a perfectly neutral gray. The gray appeared warm instead of colorless. He therefore eliminated yellow-orange and red-orange from his circle, and found that there was perfect balance between the warm and cool hues. He renamed the hues, substituting the name "Yellow-Red" for Orange, "Purple" for Violet, "Purple-Blue" for Blue-Violet, and "Red-Purple" for Red-Violet.

Instead of the twelve hue circle we now see ten hues, divided into the *Five Principal Hues* and the *Five Intermediate Hues.* The Principal Hues are Red (R), Yellow (Y), Green (G), Blue (B), and Purple (P). The Intermediate Hues are Yellow-Red (YR), Green-Yellow (GY), Blue-Green (BG), Purple-Blue (PB), and Red-Purple (RP). (Fig. 156A.) The elimination of yellow-orange and red-orange has changed the complementary colors to read:

Red and Blue-Green—R and BG
Yellow and Purple-Blue—Y and PB
Green and Red-Purple—G and RP
Blue and Yellow-Red—B and YR
Purple and Green-Yellow—P and GY

Use of numerals to denote gradations between hues. Numerals are used to designate the hues lying between the principal and intermediate hues. The principal and intermediate hues are always 5. A clear blue would be 5B; a

clear blue-green would be 5BG. The hues lying between 5BG and 5B are designated as follows: 6BG, 7BG, 8BG, 9BG, 10BG (the midpoint between 5BG and 5B), 1B, 2B, 3B, 4B, to 5B. The 6BG has a little more blue in it than 5BG; 7BG is another step nearer to clear blue; 8BG has still more blue; 9BG is four steps from 5BG and six steps from 5B; 10BG is just halfway between BG and B. The other steps—1B, 2B, 3B, 4B,—each show more blue and less blue-green until they reach 5B. There are 100 steps (decimal system) in the hue circuit, and they run in the following order from 5R back to 5R again:

R 6 7 8 9 10R 1YR 2 3 4 YR 6 7 8 9 10YR 1Y 2 3 4 *Y* 6 7 8 9 10Y 1GY 2 3 4 GY 6 7 8 9 10GY 1G 2 3 4 *G* 6 7 8 9 10G 1BG 2 3 4 BG 6 7 8 9 10BG 1B 2 3 4 *B* 6 7 8 9 10B 1PB 2 3 4 PB 6 7 8 9 10PB 1P 2 3 4 *P* 6 7 8 9 10P 1RP 2 3 4 RP 6 7 8 9 10RP 1R 2 3 4 *R*.

Value (*Symbol V*). Values, in the Munsell plan have numbers. There are ten steps between Black and White. Absolute black (which the eye can not see) is 0, and is written N 0/. Absolute white is N 10/. Halfway between black and white is *Middle Value*, or N 5/. (Figs. 156B and 157.)

Chroma (*Symbol C*). The full strength of the weakest color, which is blue-green, determines the circumference of the circle, and all other colors extend beyond the circumference in the degree of their relative strength. Red is the strongest color. The chart in Fig. 157 shows it to extend ten steps beyond neutral gray, while its opposite, blue-green, at its full strength is only five steps. This chart shows the relative strength or chroma of every hue, and it will serve as a guide in the use of each color. (In an ideal color solid the strongest colors would be those actually seen in the spectrum. The charts, however, are limited by the pigment medium, which in no case reaches spectral strength.) Since red is twice as strong as its complement, blue-green, one would need to use twice as much of the strongest blue-green to obtain enough force to be the equivalent of one part of strong

red. Each color has its own chroma or intensity scale, just as it has its own value scale.

Red, as has been seen, has its greatest strength at the tenth step of chroma. Chroma is written after a line which divides it from the figure used for the value, e. g., "/10." At the fifth step of chroma, since its greatest strength is /10, it is just halfway between pure red and neutral gray. One can imagine steps all the way along these ten degrees, each one varying in the strength of its redness, while it does not change its hue or value. Chroma /1 would be almost neutral gray, but would have the faintest possible suggestion of red in the gray, making it a warm gray. Chroma steps /2, /3, /4, and /5 would continue to grow in strength and /8 and /9 would speak a definitely strong red note. (Fig. 157.)

Color symbols in the Munsell color notation. In the Munsell notation a color is expressed as follows: Hue $^{\text{Value}}/_{\text{Chroma}}$. Hue is denoted by the name or the initials of the color, viz. Red or R. The value is expressed by the number on the value scale to which it corresponds, and is written with a line after it : 5/. Chroma is expressed by the number of the step on the chroma scale, and is written after a line. The line is there simply to separate the value and the chroma notations. Thus, the five principal colors, as they appear in their fullest intensity on the color chart would read as follows:

R 4/10, Y 8/9, G 5/7, B 4/6, and P 3/6.

CHAPTER IX

HOW TO USE COLOR

Success in color work depends upon selecting colors which are beautiful for a particular purpose, and combining them so that they enhance rather than detract from each other's beauty. The ability to do this is worth all the trouble one must take in order to learn the guiding principles of color use.

Every color is beautiful if it is used in the right place and in the right amount. Hence the wording of the first part of the opening sentence—"selecting colors which are *beautiful for a particular purpose.*" The "right place" may be a background in one case, or an accent in another. Perhaps a certain color would be best used either to supplement or to force another color, or group of colors. The object of color study is to become so sensitive to color relationships that the recognition of "right place" becomes intuitive.

Everyone must choose colors and use them, and for that reason everyone should know something about color effects and combinations. One hesitates to say that certain colors may not be used together, for as soon as a dogmatic color statement has been made, a genius comes along and takes the colors which have been condemned, and by choosing certain values and intensities of those colors, and combining them in the right amounts, he is able to make a thing of beauty. This chapter, however, is for the average person, who wishes to learn what constitutes good taste and beauty in the use of color. In order to develop judgment in regard to colors one must learn what effects colors have upon one another when they are used in different quantities and in

different degrees of brightness and lightness. The statements made in this chapter may be regarded as guiding principles, because they have proved a help to many people.

Unfortunately one cannot learn to apply color principles after merely reading them once or twice. They must be studied, and they must be consciously applied every time a color is used. After making a color chart and a value scale one will have gained the first steps necessary to intelligent color work, namely: the ability to picture in one's mind every color mentioned in its different degrees of lightness or darkness (value); colors will be recognized in various degrees of brightness or dulness (intensity); and it will be possible to imagine the additional hues which appear between the colors shown on the color chart, such as a yellower yellow-orange between yellow and orange, and a redder red-purple between red and red-purple.

One may be inclined to think that the principles of design apply to line only. This is not true. Every one of the principles applies to color use: Balance, or rest; Proportion, or beautiful sizes; Rhythm, or easy movement; Emphasis, or centers of interest; and Harmony, or unity; all these must be understood and applied in order to obtain beautiful results.

Balance in color: The Law of Areas. Balance, or a feeling of rest, is the first essential for good color arrangements. It is the principle underlying the most important color law, called "The Law of Areas." This law states: Large areas of color should be quiet in effect, while small amounts may show strong contrasts; the larger the amount used, the quieter the color should be, and the smaller the amount, the more striking the contrast may become. These contrasts may be due to a decided difference in hue, in value, or in intensity.

Balance of bright and dull colors. The Munsell color chart in Fig. 157 shows that some colors are quieter than others, even when each color is as bright as it can be. For example,

blue-green has only five chroma steps as compared to ten of red. The length of each arm of the chart shows the strength of that color as compared to all the others.

Starting with Chroma 5, which is the greatest strength of the weakest spectrum color (blue-green), Mr. Munsell found that any colors which are alike in value and which are Chroma 5 will present the same amount of attraction to the eye, and will therefore balance each other. Examples to illustrate this are often found in fine oriental rugs, where colors are usually about the same value, and are commonly used in Chroma 5. Since all colors of equal value balance at Chroma/5, it is found that just as soon as one uses any color brighter than that in a combination, he should use it in a smaller amount in order to retain the balance. On the other hand, if a duller color than Chroma/5 is used in such a combination the amount would be correspondingly increased. This is another way of stating the "Law of Color Areas."

Balance of light and dark colors. Value, or dark and light, is as important in color balance as brightness. While equal amounts of color of the same value as Chroma /5 will balance each other, it is found that if there is a difference in value there must be a corresponding change in the amounts used, in order to give the effect of repose. Thus, a small quantity of a light value will balance a large amount of a dark value, or small amounts of dark balance large areas of light.

Balance of hues: Complementary colors. Complementary colors,—the hues which lie directly opposite each other on the color chart—form a natural balance because they complete or complement each other in the eye. (See Figs. 155 and 156A.) It is a well known fact that one can rest any one set of muscles in the body by using another set, as in changing occupations. The same thing is true of using the nerves of the eye which make color vision possible. On the retina of the eye there are a great many tiny nerves which are sensitive to various colors, but which are capable of growing

tired and refusing to work. Experiments may be made in order to discover what happens when one fatigues the nerves which respond to each color. Take, for example, a piece of red paper, of spectrum hue, value, and intensity. Hold this against a piece of white paper, covering some of the red with the thumb. Sit in strong daylight and stare at the red paper for some time. After a short while the paper will seem to grow duller; to prove that this has happened, lift the thumb and it will be seen that the spot which was covered appears much brighter than the piece which one has been looking at. One set of nerves was registering the color of the thumb and so the red nerves at that spot in the eye did not become fatigued. After looking still longer at the red paper, take it away and look at the spot on the white paper where the red had been, and a distinct bluish-green will be seen, which is the complement of red. Blue-green is the color which is left in the eye after these red nerves refuse to act. Thus it will be seen that if a touch of complementary color is used in an arrangement it brings all of the nerves of the eye into use and prevents any one set from becoming overtired.

To illustrate the balancing of hues, imagine a room furnished in tan and brown with accents of orange and red-orange. This room would become monotonous. Add to the scheme, however, some of an opposite color, which contains a large amount of blue, such as blue-purple or blue-green, and the room will appear restful and pleasing through the introduction of the balancing color. If the bluish colors were bright, the room would need only a small amount, such as could be supplied through figures in draperies, a vase and a candle. Complementary colors produce such strong contrasts that only a small touch of a bright opposite color is needed to give balance.

Balance through "crossing" or repetition. There are two ways to balance colors. The first way, as has just been seen,

is through the selection of the proper amounts of bright and dull colors, according to the "Law of Areas," and the second is through the arrangement of these colors. Colors or values can be balanced by repeating some of the same colors or values in various parts of an arrangement, and this repetition—sometimes called "crossing"— has a tendency to give a feeling of rest. To illustrate balance by crossing, let us imagine a dining room in which the walls and woodwork are ivory-white, and the furniture mahogany. Suppose that some draperies in which blue-green predominates are hung at windows which are on one side of the room. The concentration of the only blue-green in the room on that one wall would make the color scheme seem incomplete. If some echoes of the blue-green were to appear in the accessories seen against the other walls and if possibly a note of it were repeated in chair seats or in the rug, there would be a pleasant effect of color balance. A second illustration may be drawn from the field of window decoration. In the window something of the same hue (not necessarily in the same value or intensity) could be used on both sides of the center to create balance. A purple dress at one side would be balanced by a purple hat on the other side, farther away from the center, since the hat is smaller than the dress; if the hat were much brighter than the dress it might balance it at the same distance from the center.

Since each color has the power of attracting attention through its hue, value, and intensity, that attraction must be considered as the "weight" of the color, and the color arranged according to the principles used in placing large and small objects.

Proportion in color. The study of proportion showed that interest may be gained through a subtle variety in proportion, while monotony results from too much repetition. Since this principle applies to color as well as to sizes, color combinations are more beautiful when the amounts are

varied than when they are equal. A dress or a hat, for example, made of more than one color would be more interesting if unequal proportions of the colors were used than if the amounts were alike. In any arrangement, if the colors to be combined are equal in their power to attract attention, the Greek proportion, of about two parts of one to three of the other, will be a good distribution. However, if the colors are very different in their forcefulness, they should be arranged according to the "Law of Areas," and the bright colors used in small amounts.

Rhythm in color. Colors should be so arranged that the eye can move easily from one to another. A fine example of such a composition is shown in Fig. 105 in the chapter on Rhythm. Notice how the arrangement of the blacks leads the eye easily throughout the picture. When colors are skilfully repeated in several places in a room or in a costume, the eye travels rhythmically as it follows these colors. Rhythmic color also results from the use of gradations in hue, value, or intensity. This, too, is seen in the Japanese print, where there is a gradual change from the lightest colors through the grays to black.

Emphasis in color. Emphasis in color can be gained through contrasts of hue, light and dark, and brightness.

In any color arrangement there should be one outstanding color effect. Whether the scheme be very quiet and simple, or complicated, one should be conscious of a main color, perhaps in different degrees of distinctness, or in various values and intensities. For example, there may be an effect of a yellowish tone running through a group of orange and green tones, or bluish through greens and purples. The effect of every other color which is used in that arrangement should be subordinated to the main color in order to prevent confusion. If only black and white and grays are used, the same principle would be followed, and one value should predominate.

In the chapter on Emphasis one of the most important principles in color use was discussed. This principle is as follows: *Backgrounds should show less emphasis than the objects which are placed against them.* Colors which are to be used as backgrounds in rooms and in store windows should be very dull, because the duller they are, the more effective are the objects that are seen against them.

Harmony in color. Color combinations which give pleasure are those which show harmony or unity. They give the impression that all the colors really belong together, and yet at the same time there is sufficient variety so that the arrangement does not become monotonous.

The color charts in Figs. 155 and 156A show that there are two large groups of color, the warm colors, which include the reds and yellows, and the cool colors, which lie around blue. There is a certain family likeness,—a natural harmony—among the warm colors, and a similar kinship and unity among the cool colors; therefore, if one wishes to obtain color harmonies he will combine warm colors with warm, and cool colors with cool. If contrasts are desired, some cool color may be used in a warm scheme, or a warm color note introduced into a cool scheme. There are, however, degrees of warmth and coolness within the warm and cool groups. Blue of full intensity is colder than a somewhat neutralized blue, since the orange which neutralized it has also warmed it. Blue-green is warmer than blue because it contains yellow. Therefore, if one wishes to use a cool color as an accent in a warm scheme, a tone of blue-green or a somewhat neutralized blue will be more harmonious with it than a clear, cold blue. Similarly, if one were bringing a fairly large amount of a warm color into a cool scheme, it would be better to use the yellow, yellow-orange, and orange tones than a full intensity red-orange or red. If the warmest of the warm hues were used they should be neutralized, since the addition of the complement tends to cool them. Dis-

cord, instead of interesting variety, is apt to result when extremely warm colors are combined with cold colors, unless one follows the "Law of Areas," and uses these contrasts in very small spots.

Background colors. The most unifying colors are the colors of light—yellow, yellow-orange, and orange. When these colors are dull enough, as in grayish tans and taupes, any hue looks well against them, and therefore they make the most useful colors for backgrounds. It will be found that the grayed warm hues, which are somewhat advancing, have a tendency to unify the colors which are placed against them. The cool hues, which recede, have a tendency to separate colors seen against them.

Beauty in color schemes. The most beautiful color schemes are those which give a single impression: an impression of warmth, with a note of coolness for variation; or of coolness, with its accent of warmth. It is particularly desirable to follow this order when one is planning colors for anything so large as a room or a display window. For example, in a window display of suits and dresses of cool colors,—blues, blue-greens, and greens,—it would be interesting to bring in just a little orange and red-orange in scarfs or hats for the warm accents. A typical example in house furnishing may be visualized through the description of a color scheme for a bedroom. The colors are suggested by a Japanese print which hangs in the room. The colors are mainly warm, with some accents of cool color. The walls and woodwork are a soft ivory tone.[1] The drapery material, which is illustrated in Fig. 222 has a cream colored background with a pattern which shows masses of sunny golden-yellow,[2] and pinkish tan,[3] with a touch of tomato red,[4] and some bits of purplish

[1] (YO 7/8N HL) (YR 8/1).
[2] (YO 1/4N LL) (YR 6/7).
[3] (RO 7/8N LL) (RO 6/2).
[4] (RRO 1/8N M) (6R 5/8).

blue and green which give contrast and add distinction to the room. The blue is dark,[1] and the green is slightly yellowish, and the same value as the red.[2] The rugs are inconspicuous, with a warm tinge in the nearly neutral colors, and the furniture is mahogany. Some of the cool colors of the draperies and the Japanese print are repeated on the fourth side of the room in candles and in an Italian pottery box. Here, then, the first impression is of a group of colors related to the orange family, with points of cool colors for interesting variation.

Keyed color. A combination of several colors is said to be *keyed* when each color has something in common with every other color. A fine colorist will say that this keying of color is the secret of his success. Colors may be keyed to each other in the following ways:

(1) By neutralizing them.
(2) By mixing them to introduce a color in common.
(3) By glazing, veiling, or topping them.
(4) By tying them together by means of a neutral color.
(5) Through the use of a rough texture.

Keying by neutralizing. Since all the hues are present in a neutralized color, it is apparent that any colors which are neutralized are keyed, because they have something in common.

Keying by mixing. The admixture of a common color will key two rather widely separated colors. Yellow and blue are brought together by the use of green, and red and yellow are keyed by combining orange with them.

Keying through glazing, veiling, and topping. One color placed over the top of a group of colors will key them. In painting, this method is called glazing, and a golden colored varnish, or a flat wash of one color over a picture will unify all the colors in the composition. In dress, this result is

[1] (BBV 1/4N D) (7PB 3/8).
[2] (GYG 1/8N M) (4G 5/6).

achieved through placing a transparent or semi-transparent fabric over several colors. Chiffon or georgette over a figured material, or over the many colored flowers on a hat will key the colors. When this method is used in dyeing it is called topping. A piece of embroidery with inharmonious colors may be keyed by dipping the piece in a weak dye bath of some beautiful color.

Keying through tying. Colors which are not entirely agreeable when placed next to each other may be tied together or harmonized by the use of a neutral tone between the two colors. The neutral tones which are best suited for tying colors together are black, white, gray, silver, and gold.

Keying through texture. A rough texture will have a tendency to key colors because of the variations in light and shadow over its surface. For example, one may use brighter colors in a design to be printed on terry cloth than would be chosen for glazed chintz, for the rough weave of the terry cloth would tend to melt the colors together.

A concrete illustration of keying colors. Let us compare the background colors in two living rooms. The colors in "A" have not been keyed, while those in "B" have been keyed to yellow-orange.

A. The walls are light and bright—a tint of clear yellow-orange; the woodwork is painted a bluish white; there are figured draperies of bright blue-purple, yellow, green, and orange, on a blue-white background; the rug is a strong yellow-brown. Each color stands out by itself, and has nothing in common with any other. Since these background colors are not keyed they lack unity, and they will not be able to unify the colors used in the furnishings of the room.

B. The background here is a tint of yellow-orange which has had enough blue-purple mixed with it to neutralize it partly, so that it now appears as the color known as a soft, grayish tan. The white of the woodwork has been keyed to yellow-orange by mixing with it a little yellow-orange paint,

making it "ivory-white." The strident colors of the drapery material in "A" have been keyed to the walls and to each other by "topping," or dyeing the fabric in a weak dye bath of soft yellow-orange (called sand color). Contrast the soft tan, the ivory tone, the warm taupe, and the soft grayed blue-purple, tan, and gray-green of this room with the unkeyed colors in "A." All the colors here are keyed to yellow-orange, and thus they are unified; they have been made dull enough so that the colors placed against them will show to advantage.

Sources for color harmonies. There are two ways in which color arrangements may be made:

(1) They may be adapted from a beautifully colored picture or fabric, and fitted to a special need.

(2) They may be made by combining related or contrasting colors according to the "Law of Areas."

The enterprising color worker keeps his eyes open for good color suggestions, and he has a collection of reference material which he is always changing. His taste improves as he studies, and while there are frequent additions to his file, there are many subtractions. Sometimes a magazine cover will offer a wealth of suggestions for color arrangements. Quite frequently beautifully colored advertisements appear in the magazines. Other sources are: fabrics, such as cretonnes, printed linens, and silks; some Japanese prints; post-cards of good paintings, such as the pictures by Whistler; and the books illustrated by Edmund Dulac, Arthur Rackham, or Jules Guerin. Very often one may select a portion of one of these colored plates to follow. If the worker is choosing only a small section he must be sure that he is selecting balanced colors. There is a tendency in working from such illustrations as have been mentioned, to overlook the Law of Areas, and not use enough dull color to make an effective setting for the bright colors. When the sizes are increased, as would be the case if a room decoration

were planned from a small post-card, there must a proportionately larger amount of dull color and a smaller amount of bright than is shown in the original picture. In copying these beautiful color schemes, the worker must be able accurately to analyze the colors for their correct hue, value, and intensity, in order that the same delightful color relationships may be preserved. If the appealing color is blue-green, and it is next to a beautiful tone of orange, the colors should be kept in similar positions. If the blue-green were placed next to a purplish blue, which, in the picture, is widely separated from it by a large area of neutral color, the result will not have the beauty that the worker had hoped to secure. Remember that sometimes the fine quality in a color scheme is due to the values which are used, while in other arrangements it is due to the balance of dull and bright colors. One must discover what has made the original beautiful before attempting to adapt it to another purpose.

Standard color harmonies. There are certain color combinations which give pleasure to the eye and others which are apt to offend. Until one has had a great deal of practice in combining colors it is well to follow the harmonies which have been used successfully by artists for many years. These harmonies may be divided into two main groups:

A. Harmonies of Related Colors.

B. Harmonies of Contrasting Colors.

Related Harmonies. Related color harmonies are those in which the colors are similar. They include:

(1) The One Hue Harmony.
(2) The Analogous Harmony.

The simplest of these is the One Hue Harmony.

One Hue Harmony. (This is also called One Mode, and Monochromatic.) (See Fig. 178A.) In instances where only one color is used there may be different values and intensities. A one hue harmony is always a safe one to use, but

it is more successful for dress, or for something which is comparatively small in area, as a rug, or even walls and rugs; it would become tiresome if it is carried out in an entire room, such as was described in the paragraphs on Color Balance. In one hue harmonies additional interest may be gained if there is a contrast in the textures which are combined, as serge with taffeta, or taffeta with georgette. A man's apparel would show a one hue harmony of blue in different values and intensities if he were wearing a dark blue suit, a white shirt with stripes of a lighter and brighter blue, a dull blue tie, and black hat and shoes. *The neutral colors, black, white, and gray may be used in any harmony.* In matching colors for a one hue harmony be very sure that you are getting the exact hue; a greenish blue is unpleasant with a purplish blue, and a reddish purple,—crimson, for example—is bad with reddish orange—such as scarlet. In matching colors it is safer to try them both by daylight and by artificial light, since some colors take on an entirely different hue in artificial light.

Analogous Harmonies. When colors are used which lie next to or near each other on the color chart they form analogous harmonies. They are usually most successful when they are limited to the colors which come between the primaries, and they may include any or all of these adjacent hues. For example, between the primaries yellow and blue such combinations as G and BG; Y, YG, and G; or YG, G, BG, and B, might be used. An analogous harmony shows one color running through the entire group; as green running through YG, G, and BG; or orange through YO, O, and RO. (See Fig. 178D.)

In using analogous harmonies the colors should always be in different values or different intensities; or they should differ both in value and intensity. If they are too nearly alike it will seem as though an attempt had been made to match the colors, but that the result just missed being

successful. Three adjacent combinations which are exceedingly difficult to manage are the colors on either side of a primary. These pairs are: RP with RO; BP with BG; YO with YG. It takes genius to combine red-purple and red-orange beautifully, and talent successfully to use blue-purple with blue-green, or yellow-green with yellow-orange, because those colors are neither different enough to form good contrasts nor similar enough to create harmonies.

Analogous harmonies are apt to be quiet and restful, and they show more variety and interest than one hue harmonies. They may be used for any purpose, although, we repeat, they are not so completely successful for the color scheme of an entire room.

Harmonies of Contrasting Colors. The contrasting harmonies are:

(1) The Complementary Harmony.
(2) The Double Complementary Harmony.
(3) The Split Complementary Harmony.
(4) The Triads.

Combinations of opposite colors are more difficult to use than those of neighboring colors because their success depends entirely upon a knowledge of the "Law of Areas." When they are well done, however, they are richer than related harmonies, and more satisfying to the eye, for rooms, window displays, or for other purposes where large amounts of color are to be used. The addition of a contrasting color to a color scheme is like adding pepper to food, and therefore the "Law of Color Areas" should be scrupulously followed when contrasting colors are used.

Complementary Harmonies. When colors which are directly opposite each other in the color circle are used they form complementary harmonies. In the Prang circle they are Y and P; B and O; R and G, etc. In the Munsell circle they are Y and PB; B and O; R and BG, etc.

Complementary schemes may be most pleasing, or they

may be the least satisfactory, depending upon how they are used. The reddish hues, in particular, need careful handling, because they are so much stronger than their complements. Either they or the complement should be very dull, or very light or dark, or else only a small note of the opposite should be used. Of all the contrasting colors, red and green are perhaps the least beautiful, and they are the most difficult to combine. Even their tints, pink and green, lack character when placed together. The complements as seen in the Munsell chart—red with blue-green, or green with red-purple—are much more pleasing; but, as has been said, they must be handled with care. (See Fig. 178C.)

Double Complementary Harmonies. Two directly adjacent colors and their complements, when used together, form double complementary harmonies. Examples on the Prang chart are: P and RP with Y and YG. (See Fig. 178B.) R and RO with G and BG. In using a double complementary harmony there should be one outstanding hue, which would be the largest amount used, and it should be the dullest of all the colors; the next color may be a little brighter, but should still be very dull; the third color, used in only a small amount, ought to be about one-half neutralized; the fourth color, for the smallest accents, may be in or near its brightest intensity. To illustrate: a dull purple dress might have an ecru [1] net vest and collar; a rather dark, dull red-purple hat with wool embroidery in light, dull purple, and a bit of some bright yellow-green would complete the double complementary harmony of P, RP, Y, and YG.

Split Complementary Harmonies. Combinations of a primary or an intermediate color with the colors on either side of its complement form split complementary harmonies. For example, Y with RP and BP; or YO with B and P. As the term implies, one splits the complement of a hue, using only its component parts, and omitting the complement.

[1] Ecru is the popular name for Yellow—about three-fourths neutralized.

Since a primary is an element, the colors on either side of it do not enter into its composition. Therefore, one cannot start a split complementary harmony with a binary color, because it is impossible to split a primary. The result, in a split complementary scheme, is a harmony of similar colors with a note of an opposite color for contrast. The amounts of the different values and intensities should be adjusted as in any other contrasting harmony.

Triads. Triads are equilateral triangles on the Prang color chart, and on the Munsell chart they are as nearly equilateral triangles as can be made with ten colors in the circle.[2] There are four triads on the Prang chart: The Primary Triad, made of the three primary colors, R, B, and Y; the Binary or Secondary Triad—G, O, and P; and the two Intermediate Triads—(a) YO, BG, and RP, (See Fig. 178E) and (b) YG, BP, and RO.

While triads are the richest of all the harmonies if they are well used, they are the ones which need the most careful treatment.

How to combine contrasting colors. When three unrelated hues have to be combined the color worker feels as if he were handling high explosives, and he usually follows some such plan as this: The color chosen to occupy the largest space is so low in intensity that it is almost gray; the next amount will be at least one-half neutralized; the third may be bright, but only a small amount should be used. Imagine a cretonne showing the YO, BG, and RP triad; the background is YO,

[2] *Munsell triads.* The hues which form the points of the triangle should always be at least three hues apart on the color chart. Thus every triangle will have three spaces on two of its sides, and four spaces on the third side. Put a piece of transparent paper, as tracing or tissue paper, over the color chart in Fig. 156A, and draw these triangles, locating each one of these triads. Starting with RP and counting three hues toward the right, draw a line to Y; from Y count three points farther to BG, and draw another line; connect the BG and RP, and you have the RP, Y, and BG triad. A second triad which includes RP can be made by counting four hues to the right, to GY, and three hues beyond it to B, resulting in RP, GY, and B. The third triad with RP is located by counting three hues to Y, and four to B, giving RP, Y, and B. Any similar triangles on the chart will locate triads.

so nearly gray that it would be called a soft, dull tan; the larger amount of the design is a darker, dull YO, and a dull BG, and there are small figures of bright RP. These colors balance each other because they use all of the color nerves in the eye: and, because they are so varied in degrees of brightness and in amounts, they give pleasure.

The most beautifully colored rooms are apt to contain many colors rather than few, and a definite relationship may usually be discovered among these colors. Although a room which shows a complementary color scheme will be more interesting than one in which only analogous colors are used, the most satisfying effects are secured by the use of triads when they are combined in the areas and intensities which are described above. On first thought, a yellow, and blue, and red room might sound bizarre, but when one speaks of these colors as tan, old blue, with notes of terra-cotta, a different picture presents itself, for here are colors which are harmonious because they are keyed, and at the same time there is pleasurable variety because balancing groups of color have been used.

SUMMARY OF POINTS FOR SUCCESSFUL COLOR WORK:

(1) A color scheme should give an impression of being composed mainly of warm colors with accents of cool colors, or of being a cool scheme with touches of warmth.

(2) Colors should be balanced by one or more of the following methods—
   (a) Through the application of *The Law of Areas*, which states that the larger the area, the duller the color should be; and the smaller the area, the brighter the color may be.
   (b) Through the *Repetition* or *Crossing* of colors, which insures a restful effect, obtained by repeating an important color from one part of an arrangement to another.
   (c) Through the *Balancing of Hues*. When large areas of color are to be used, as in rooms, stage settings, or window displays, the use of balanced hues, such as pairs of complements or triads, will produce an agreeable sense of variety.

(3) Colors should be keyed. In order to gain harmony in an arrangement, all the colors which are used in large areas should appear to contain one color in common.

CHAPTER X

SOLVING AN ART PROBLEM

There are three things which together qualify a person for preparing suitable designs or making wise purchases. First, he must be able to measure his choices according to the principles of art in order that his selections may have beauty. Secondly, he must know enough about the materials and processes used to be able to judge good workmanship. Thirdly, he must have a certain store of related information, such as some knowledge of science and economics, which has a more or less direct bearing upon his problem. These qualifications make it possible for him to form a good judgment upon:

(1) Whether the object should be purchased or made.

(2) The factors which affect good quality.

(3) The right price to pay in relation to the income, considering the other demands made upon the income.

(4) The time and strength consumed in making the object in the light of the return it makes (this return may be measured in increased skill, or in the satisfaction which results from the finished object).

(5) The time and strength it will take to maintain it in good condition.

The ability to apply this related information should give one a sense of relative values, and of appropriateness. It is only when a problem in purchasing or in designing has been worked out to satisfy all these requirements that it may be called a *Related Art Problem.*

The plan suggested here can be applied to the solving of any art problem. It is based upon the generally accepted steps in solving a problem, and everyone should think

through the various stages or jot down his conclusions before making or buying anything which has to be lived with and looked at for a length of time. This plan for solving a problem has four steps:

(1) Recognizing the problem, which is the setting up of a definite aim or purpose to be accomplished.

FIG. 158.—(*Courtesy of Wm. A. French & Co.*)
If one were considering the purchase of a suitable rug for this dining room his choice might be a rug similar in type to FIG. 159.

(2) Making a plan for working out the problem, which involves collecting all the information related to it.

(3) Carrying out the plan.

(4) Testing the results and making a final judgment of the success or failure of the plan before accepting it or discarding it to make another.

In considering a typical problem, such as the selection of a rug, the details of the plan would be filled in somewhat as follows:

THE PROBLEM. The aim is to select a suitable rug for the dining room illustrated in Fig. 158.

THE PLAN. Some of the factors which will need to be

considered before a satisfactory rug can be selected are: *the room,*—its purpose, size, shape, wall treatment, furnishings, and the people who are to use it; *textile information,*—such as weave construction, properties of fibres used for rugs, and textures which are suitable for a floor covering, for the use of the room, and for the type of furnishings; *art information,*—standards of structural and decorative design, and of color; *economic aspects,*—amount that should be spent, time and effort required to keep the rug clean, reduction of cost of maintenance by wise selection, effect of buying good materials and colors, and reliable shops or makes of rugs.

Suggestions for Carrying out the Plan. *The Room.* It is a dining room, 13′ x 17′; the walls are a plain neutral color, a light yellow-orange about 7/8 neutralized, so that the effect is sand color; the furniture is walnut; the urns are ivory with a clear dark blue pattern; the picture above the buffet is full of sparkling color, with the warm hues predominant; there are chintz window draperies which repeat the colors in the picture, but they are a little more subdued in effect. The family consists of four adults. They are fairly conservative people with simple tastes. These characteristics have expressed themselves in the choice of the furnishings already in the room; the furniture shows them to be unpretentious and able to enjoy the simple beauty which results from good line, good construction, and restraint in decoration.

Textile Information. Materials should be chosen for appearance and economy. The fibres used for rugs are—worsted, woolen, linen, cotton, hemp, and jute. As to wearing qualities worsted is best, and woolen next. The two principal types of weave construction in floor coverings are: (1) those with a plain weave, like ingrains, and (2), the pile weave, like Wiltons, Brussels, and Axminsters. (Worsted Wiltons are made in good colors and designs, and wear well.) Textures should be sturdy enough to appear suitable

to walk upon, and not so harsh as to be unpleasant. The dining room needs a texture which is not easily crushed, and the pile should not be so high that food particles will lodge in the body of the rug. The character of the furniture and the decorative objects in this room require a rather fine texture, yet a substantial fabric.

Art information. (1), Structural Design. The shape of the rug should harmonize with the shape of the room. It is desirable to have it large enough to appear to cover the floor space adequately, and to escape being in the way as chairs are pushed away from and toward the table. It should not seem to crowd the room.

(2), Decorative Design. A design which is beautiful for a rug should be very quiet in effect; that is, it should appear to stay flat upon the floor, and form an inconspicuous background. A plain rug, suitable and beautiful in color, is always good. Any pattern that is used on a rug should be quiet in appearance. It should not have too much "movement," and it should not look spotty. The type of design should be in harmony with the furnishings and should be suitable for a floor covering. These considerations call for a well packed, conventionalized surface pattern.

(3), Color. Since the rug should be the most inconspicuous thing in the room and be a background for the furniture, quiet colors with not much contrast between the lights and darks should be chosen. Since this room has color in its furnishings, it is especially desirable to have the rug a neutral background color.

Economics. In this instance there is a sufficient amount of money to buy a rug of good quality, but not enough to have it sent to the cleaner frequently, and it cannot soon be replaced. Therefore the rug must be of a fibre and weave that will wear well, and of a pattern and color that will not show spots easily. Since it requires more experience to judge the qualities of a rug than the average person has had,

it is desirable to know some reliable makes of rugs, or to know stores which are dependable.

Carrying Out the Plan, or Making the Selection. After the person who is to select the rug has acquired the necessary information concerning all the factors which have

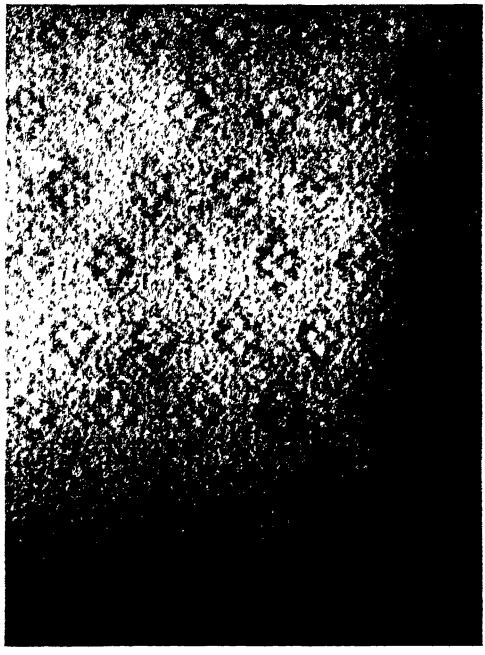


Fig. 159.—This is a good type of figured rug because the design is flat in effect, it covers the surface compactly, and there is little contrast in value.

been listed, and has applied it to the problem at hand, he is able to make a satisfactory selection. He would choose, then, from among the available rugs, one somewhat as follows: Size, 9′ x 12′; fibre, worsted yarn; weave, Wilton; design, an all-over pattern of very closely packed design with very little contrast in light and dark values; color, a warm taupe (red-orange, 7/8 neutralized, about High Dark in value). The rug in Fig. 159 fulfills these conditions, and might be the

one which would be selected from an average stock of rugs.

THE FINAL JUDGMENT. The final judgment can be made only after the rug has been used. The success of the choice will be measured by the degree of satisfaction derived from the use of the rug.

CHAPTER XI

HOW TO MAKE A DESIGN

The designing process is a form of organization in which the elements are a collection of units. These units, in the art field, happen to be sizes and shapes and colors. A good design is built as logically as any other form of organization, and may be compared to a country which is made up of states, counties, cities, blocks, and lots.

A knowledge of a logical process for making a design is of value to the consumer as a matter of intelligent appreciation of the things he uses. It is of value to the person actually making designs because it becomes an easy, consistent method of working. By observing the principles of art which have been described in the previous chapters, anyone can learn to make orderly, acceptable designs. Since design is a form of self-expression one may expect to add quality and individuality to his work in the measure of his appreciation and his imagination. There is no better way to develop imagination, good judgment, and fine standards of taste, than through the study of good designs and the conscious application of the art principles.

Although the different uses for designs will impose different limitations for working them out, the same general method may be followed in making designs for any purpose. A general working plan is outlined here, followed by an application of the plan to such familiar problems as how to make a design for a woven runner, a room, and a costume, how to mount a picture, and how to letter.

There are two considerations in every design: First, the shape of the object itself, called the *structural design;* second,

the enrichment of that structure, or the *decorative design.* Before one can be a successful designer he must get rid of the idea that design includes only the decoration which is added to an object. The structural design is of greatest importance, and it should have the designer's first consideration. The following factors are involved in the making of a good design:

(A) Kinds of design.
  (1) Structural Design. (See Chapter II.)
    The size, shape, color, and texture of the object.
      Note. Since the structural design is the fundamental or essential part of an object it must be beautiful in itself.
    Structural design is conditioned by—
      Standards for good design.
      The use to which the object will be put.
      Surroundings.
      Person for whom the object is planned.
  (2) Decorative design. (See Chapter II.)
    The enrichment of the object.
      Note. Decorative design may be omitted. If it is used it should be subordinated to the structural design.
    Decorative design is conditioned by—
      Standards for good design.
      The structural design.
      The use to which the object will be put.
      Surroundings.
      The person for whom the object is planned.
      Personality of the designer—(which determines the quality of the design.)
      Amount of decoration desirable.
      Nature of the design:—
        Motif or idea:
          Sources
            Abstract or geometric lines or masses
            Symbolism
            Nature forms
        Treatment:
          Conventionalization, or adaptation to the materials used and the use to which the object will be put.
          Pictorial or naturalistic treatment.

(Suitable for pictures, but not appropriate on articles for use, such as clothing, house furnishings, decorative objects, etc.)

Note. An essential requirement for good decorative design is character—in art sometimes called "Decorative Quality."

(B) Method of working out a design.

(1) Structural design.

Plan the size, shape, and color of the object, according to the principles of design:

- Proportion
- Harmony
  - Shape
  - Texture
  - Ideas (suitability to purpose)
  - Color
- Rhythm
- Balance
- Emphasis

Execute the structural design.

(2) Decorative design.

Geometric plan or "lay-out."

The objective of the lay-out is to secure an orderly arrangement.

Within the structural design the principal masses of form and color of the decoration are indicated by sketching or "blocking in" the sizes and shapes in their positions. (See Fig. 160.)

Arrange forms and colors according to:

- Emphasis
  - (Decorative design should be subordinated to structural design.)
- Proportion
- Harmony
- Rhythm
- Balance

The details of the decorative design.

The objective at this step is to secure beauty and a decorative treatment.

Arrange and judge forms and colors according to:
Emphasis
Proportion
Harmony
Rhythm
Balance

Designs which have been worked out in this manner have coherence, and the worker is enabled to perceive relative values if he uses this process: first, planning his structural design; second, blocking in the entire area which the decoration is to occupy; and third, breaking up this area into details which are related to each other and to the entire structure.

Analysis of the making of a design. A concrete example of the process of building a design is illustrated in Fig. 160A, B, C, D, E, and F. In order that all the steps of this problem may be considered, let us assume that the designer of the blue and white runner which has been chosen for this analysis has planned to use it on a chest of drawers in a particular bed room. The furniture is mahogany, and there is much white in the room, so that a white runner will not stand out too conspicuously, and the blue of the pattern will make an interesting color contrast.

The structural design. First step. (Fig. 160A.) The objective is to show a well proportioned border of wood on each side of the runner on the top of the chest, and to have the scarf hang down over the sides so that an oblong of interesting shape may be seen against the side of the chest. The top of the chest measures 20″ x 34″, so the structural design will be an oblong which measures approximately 15″ x 54″.

The position of the decorative design. Second step. (Fig. 160B.) It is decided that the ends of the runner are to receive the decoration. (See "F.") The space which it is to occupy is then blocked out on the structural design as at "B." This

space is compared with the remaining background areas, and adjusted if necessary, in order to gain good proportions.

Breaking the space. Third step. (Fig. 160C.) The big space which is to contain the design is subdivided. These new shapes and spaces are tested to see that the proportions are beautiful and the shapes harmonious with the big oblong within which they are designed.

Filling the spaces. Fourth step. (Fig. 160D.) The spaces are broken up still farther, and the general movement which the eye is to take is now determined. The tests for the art principles are applied, and the designer asks himself if his design adequately fills the space; if it looks orderly; if an easy, rhythmic movement is created by the leading lines; if the proportions are agreeable; and if the background shapes, as well as those of the design itself, are beautiful, and in harmony with each other.

Determining the character of the design. Fifth Step. (Fig. 160E.) It is at this point that the character of the design is established. The motif may have been selected before the design was started, or it may be chosen at this stage in the process. The beginner may be more certain of getting character and distinction into his design if he seeks his inspiration from designs which he knows to be good. He may select a good idea, interpret it to suit his own taste, and change it in whatever manner he finds advisable in order to adapt it to his design and its purpose. The libraries and museums hold a wealth of inspiration for young designers, and it is not difficult to secure Persian, Coptic, and peasant designs such as those of Czecho-Slovakia, which afford excellent illustrative material. Some of these designs may furnish an idea for the plan or the "geometric lay-out," while others may suggest interesting details. The motifs chosen for this design are flower and bird forms. These ideas were adapted to the shapes "blocked in" in "D." The forms were conventionalized in order to make them suitable

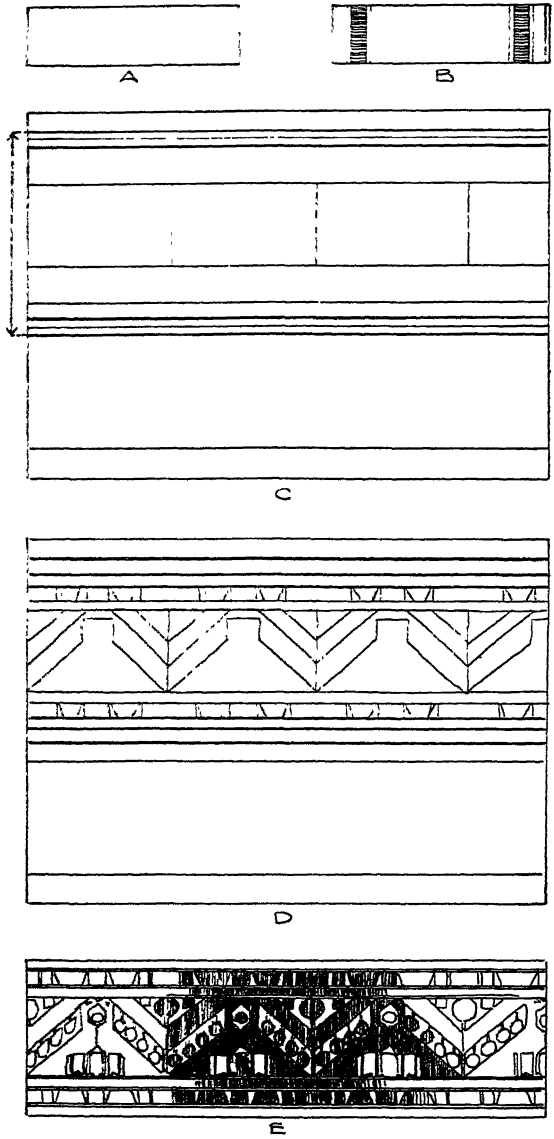


FIG. 160.—*A, B, C, D,* and *E.* An illustration of the process of building a design.

for use and adapted to the process of weaving. The background shapes were as carefully studied as the shapes of the pattern, for they are just as important a factor in the effect of a design.

Adding and beautifying the details. Sixth step. (Fig. 160F.) After adding the details and refining them, the design is again judged according to the principles of art.

FIG. 160*F*. — Blue and white towel, Italian, Umbrian, XV Century. (*Courtesy of the Minneapolis Institute of Arts.*)

This conventional design is adapted to the process of weaving. Observe the fine pattern created by the sizes and shapes in the border, and the decorative quality in the interpretation of the bird and plant forms.

When it is beautiful as well as orderly in its arrangement it is declared finished, and is ready to be woven.

Applying the design. Seventh step. The colors and threads are selected and the design is woven into the fabric.

Let us suppose that, instead of making a design for weaving, it was desired to make a simple design to be embroidered on the ends of this runner. The designer would proceed in the same manner as has been diagramed in Fig. 160, from

"A," the structural design, through "C," the breaking up of the space for the decoration. The change in the design appears at this point, and Figs. 161A and B parallel Figs. 160D and E. The same procedure as explained above would be followed for filling the spaces, determining the character

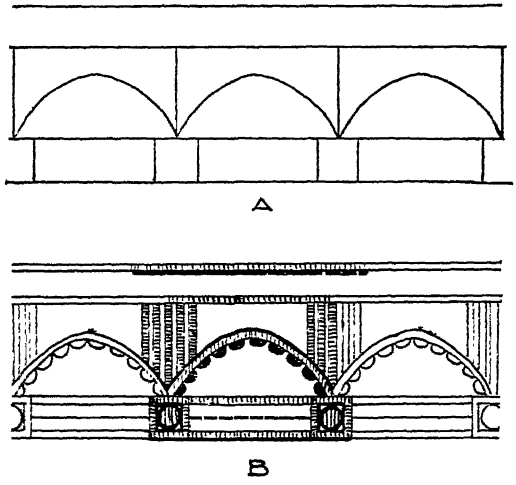


FIG. 161.—The process of making a simple design for embroidery is illustrated, in order to show that the same procedure is followed whether a design is to be simple or complicated. The aim is always to break up the spaces into interesting shapes. The layout in FIG. 160 *C* has been used as a foundation for this design. The procedure in FIG. 161 *A* parallels FIG. 160 *D*, while that in FIG. 161 *B* parallels FIG. 160 *E*.

of the design, and beautifying the details. The only outstanding difference is that the design needs to be planned so that it can be embroidered rather than woven.

Character or "decorative quality" in design. If a design is to give the maximum amount of satisfaction it can not stop at being merely correct. It must have character and individuality. When a design possesses a positive or dramatic character it is said to be "decorative," or to have "decorative quality." These terms, "decorative," and "decorative quality," used in this sense, to denote character in a design,

should be distinguished from "decorative design," which means any decoration added to structural design. "Decorative quality" is never found in a design which is "pretty" or sentimental, and it does not appear in naturalistic designs. Simplicity is an attribute of "decorative quality," while

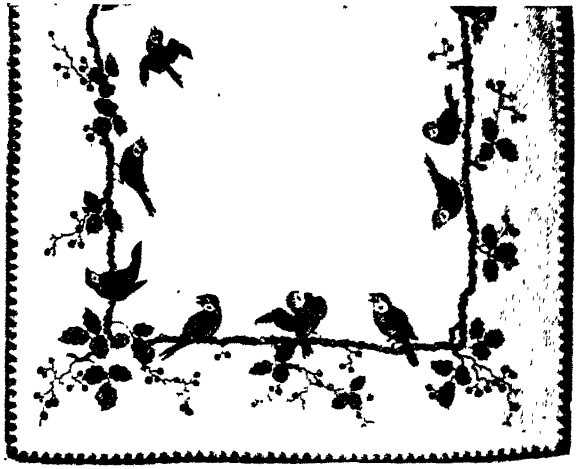


FIG. 162.—A table runner printed in blue, pink, and green. The design and the color scheme of this runner lack decorative quality. The vine and birds are too true to life, and the design is unorganized. Compare this runner with FIG. 160 *F*.

fussy elaboration is never associated with it. The two runners (Figs. 160F and 162) show the difference between a design which has "decorative quality" and one which lacks it. The naturalistic design in Fig. 162 is weak because the worker lost sight of the fact that the decoration on useful objects should be a more or less abstract pattern rather than an attempt to copy nature. He was so concerned about making his theme recognizable that he imitated the bird and the plant forms as closely as he could. Meanwhile the more realistic his design became, the less appropriate it was for use. On the other hand, the conventionalized design in the Italian runner (Fig. 160F) has merit because the designer was striving for a beautiful pattern which would be

adapted to its purpose. While he went to the same source for his design, he was not concerned about the ease with which his theme could be identified, for he recognized that if his work was to have beauty and character it must have

FIG. 163.—(*Courtesy of Wm. A. French & Co.*)
Jacobean Linen. There is "decorative quality" in this textile. The shapes are imaginative, and there is character in the treatment of the pattern. Such motifs as these offer interesting suggestions for needlework designs.

cleverly invented shapes, a fine distribution of lights and darks, and distinctive color.

Now compare the conventionalized designs in the textiles in Figs. 163 and 164 with the naturalistic design in Fig. 224. The bird, ribbon, and flower design is weak and sentimental, while in the other patterns the forms are not only adapted to the idea of textiles, but they are so individual and so dramatic that one remarks at once that these are "decorative."

It should be noted that it is as important in decoration to conventionalize the colors as the forms, and there is a loss in decorative effect when designs are worked out in naturalistic colors.

Additional examples of designs which show the "decora-

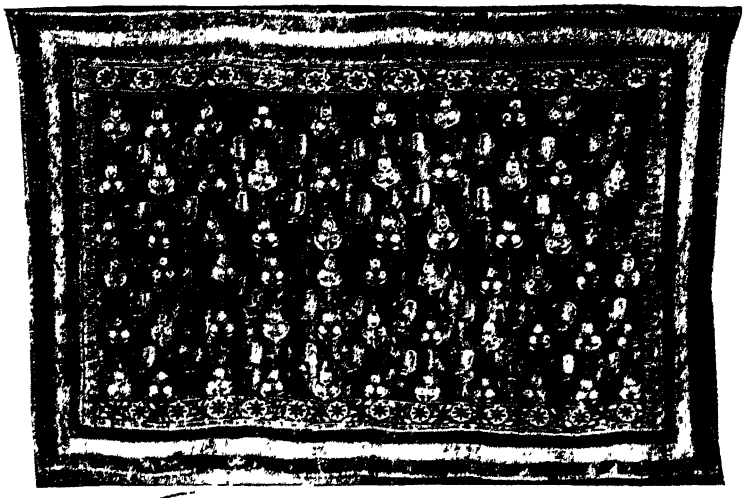


FIG. 164.—Embroidered wall hanging, India. (*Courtesy of Marshall Field and Company.*)

This panel was embroidered by someone who had a feeling for the "decorative quality." There is a play spirit in the entertaining design, and the invention in these birds and flowers pleases one much more than the accurate bird portraits in FIG. 224.

tive quality" may be seen in Figs. 39, 74, 76, 175, 222, 252, and 264.

The artists who made the old Japanese color prints possessed this sense of the "decorative quality" to a striking degree. They conventionalized their forms and their colors, and thought of even their figure studies as patterns rather than as representations of individuals. Figs. 105 and 246 are characteristic examples of their inventiveness and of their genius in the art of conventionalization. The decorative quality in these examples is very largely due to the

striking arrangement of lights and darks and colors, and to the dramatic use of lines.

In preparing a list of the requirements for good designs in various fields, one would find that there are certain essential qualifications which apply to all the fields. In judging any design one should consider its suitability for its service, the orderliness of its arrangement, the individuality of its treatment, and the beauty of its pattern and color.

Steps in designing a room. It must not be assumed that a design is made only when a new form is created. When furniture and the decorative and useful objects that go into the furnishing of a room have been placed, a design has been made. The main structural design is ready at hand for the designer: it is the size and shape of the room. This may be represented by Fig. 160A. Other structures,—rugs, furniture, and various other objects must then be placed within that form. The largest pieces are placed first, as in Figs. 160B and C. Arranging the smaller objects, such as moveable chairs, and the larger pictures, would correspond to Fig. 160D. Figs. 160E and F, translated into terms of house furnishing, would be the arrangement of the books, and the decorative details upon these larger forms already placed in D. The designer's appreciation of art would be shown in the choice of every object and color, and in the manner in which the objects were grouped.

Steps in designing a costume. In dress design, as in house furnishing, the structural design is given to the designer. He must use as his basic plan the human figure, aiming to make it as beautiful as possible. Upon this structure other structural designs are placed—hats, dresses, shoes—which, in their turn may receive the addition of some decorative design. The tests of orderly arrangement and beauty are applied. As in any design, there must be harmony. No unit should exist for itself, but there should be a fine relationship throughout the parts of the entire costume. The

more completely each detail is subordinated to the effect of the whole, the finer its quality becomes.

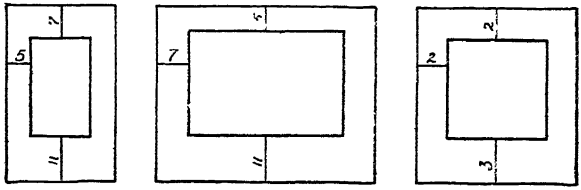


FIG. 165.—"The Law of Margins" applied to the mounting of a vertical oblong, a horizontal oblong, and a square. The observance of this law will add interest to all layouts, written matter, and objects to be mounted.

FIG. 166.—The "Law of Optics" was disregarded in the mounting of this picture, where all the margins are of equal width. Since mounted objects appear to be dropping in space, the use of a wider margin at the bottom than at the top seems to correct the unpleasantness resulting from the optical illusion. Compare these margins with those in FIG. 168.

How to mount a picture: The Law of Margins. The design problem of planning margins enters into such everyday tasks as writing letters and invitations; printing display

cards and posters; and planning the margins of a mat for a picture. One may start out with a card or a piece of paper of a certain size and shape, and arrange his composition within that shape; the size and shape of the mount become

FIG. 167.—A vertical oblong badly mounted. The shape of this picture demands that the eye travel with its height, but the wide margins at the sides carry the eye across, and there is discomfort to the eye. (See FIG. 168.)

the structural design, and the block of writing or decoration corresponds with decorative design, and is planned in the same manner as any other design. Or, on the other hand, one may be obliged to select a mount for a picture; which necessitates choosing a good structural design upon which to place the decorative design—the picture.

The principles of design which one should observe in mounting pictures or written matter are,—shape harmony,

balance, and proportion. These principles are embodied in what is commonly called "The Law of Margins," which is as follows: In a vertical oblong the bottom margin should be

FIG. 168.—A vertical oblong correctly mounted. Observe that the use of the widest margin at the base gives a sense of balance; that the next wider margin at the top enables the eye to carry along in the general movement of the picture without seeming to meet the top too suddenly; that the shape of the mount harmonizes with the shape of the picture; and that all these margins are in Greek proportions.

the widest, the top next, and the sides narrowest; for the horizontal oblong the bottom should be the widest, the sides next, and the top narrowest; in a square the bottom should be the widest, and the sides and top equal to each other. (See Fig. 165.) All spaces should be in the Greek proportion.

When the bottom margin is decided upon, each side that follows will be about two parts to three in relation to the previous space, or in the ratio of about 5:7:11.

The Law of Optics. For one who understands the principles of art it will be clear that design explains this "Law of

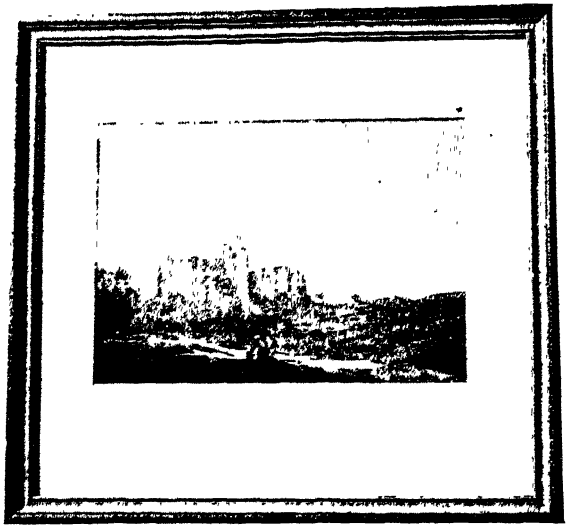


FIG. 169.—Incorrect margins for a horizontal oblong. When the top margin is wider than the side margins the eye is inclined to travel up and down the picture, whereas the shape of the picture demands that the eye travel across the width. Compare this with FIG. 170.

Margins." A comparison of Figs. 166 and 168, will show the reason for applying the principle of balance. The human eye is so constituted that all objects have a tendency to appear to be dropping in space, and if they are placed exactly in the center of a space they give the uncomfortable impression of falling. On account of this "Law of Optics," as it is called, it is agreeable in all mounted objects to have the widest space at the bottom.

Harmony of movement and of shape are reasons for the difference in sizes between the tops and sides in the horizon-

tal and vertical oblongs. A horizontal oblong will lead the eye cross-wise, rather than up and down. Therefore the most harmonious movement will be secured if the margins on each side are somewhat wider than that at the top. This may readily be seen by comparing Figs. 169 and 170. In the case of the vertical rectangle, it becomes more agreeable

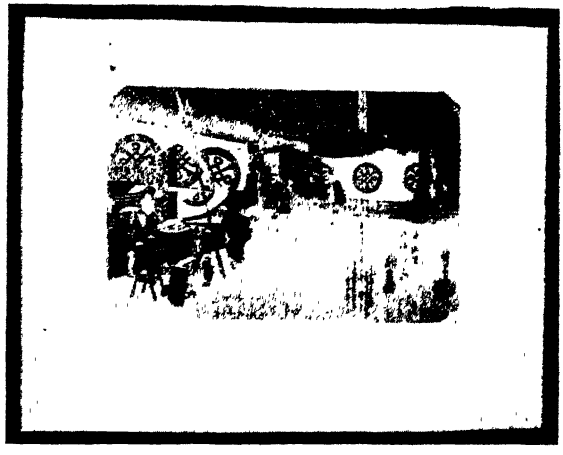


FIG. 170.—Correct margins for a horizontal oblong. When the side margins are wider than the top the eye is carried in a horizontal direction, emphasizing the shape of the picture. This makes for shape harmony.

to have the top margin wider than the sides in order that the eye may be assisted rather than hindered in the upward and downward movement. (See Figs. 167 and 168.) In both cases the resulting shapes enhance and are harmonious with the oblong which is being mounted. A square looks best with its widest margin at the bottom; but the sides and top are most pleasing when alike, producing a rather close harmony of shape. (See Fig. 171.)

Greek proportions are followed in determining the width of each margin, in order that there may be a subtle variety in the spaces; and again, for the sake of good proportion, the

size of the entire mat should be in scale with the size of the picture or the object mounted.

Since the mount is to serve as a background its color should be in harmony with the general color scheme of the picture.

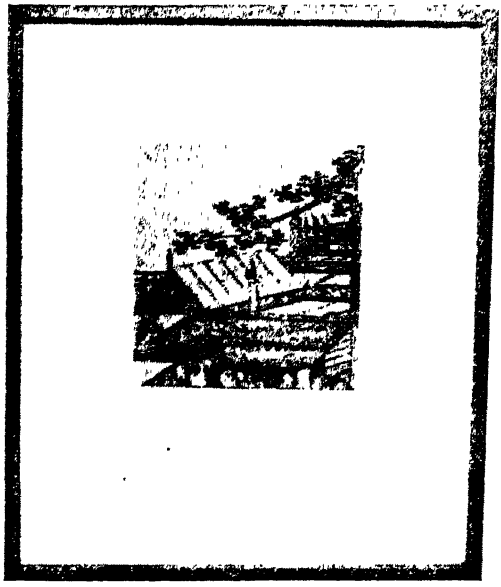


FIG. 171.—A square well mounted. The bottom margin, as always, is the widest, while top and sides are alike in order to harmonize with the regular shape of the square.

LETTERING. Good lettering is a matter of good designing. The selection of an appropriate style of alphabet, and good arrangement and spacing depend solely upon one's knowledge of design, while good letter construction is due to good design plus practice. In lettering it is far more important that the design be good than that the letters be faultless in construction. In fact, letters that are so mechanically correct that they look like printer's type lack the individuality that is so pleasing in lettering done by hand.

The process of lettering is similar to that of making any

other kind of design, and in lettering a poster, a place card, or a notice to post upon a bulletin board, the same method would be followed. To illustrate the procedure in lettering for any purpose, we shall follow through each of the typical steps as they would be taken in printing the notice in Fig. 172D.

A. *Estimate the size of the mass of lettering.* The first thing to do is to write the material to be lettered, in order to gain a general idea of the amount of text. Make the writing approximately the same size as the printing will be.

B. *Select the alphabet.* The second step is to select an alphabet which is in good taste, and suitable in style, size, and weight, to the idea which is to be expressed. A lighter alphabet should be chosen to write about such delicate things as laces and art objects than for hardware. (See Fig. 82.) The alphabet should be simple and easy to read. One may use all capitals, or capitals with lower-case letters. Capitals are less complicated than lower-case letters, and the beginner will do well to use them for all his work. An alphabet should be chosen in which the letters are well balanced, and in good proportion. Letters will appear in better balance if the division lines in H, E, B, and S are placed slightly above, rather than below the center. Since the degree of difference between the upper and lower divisions is a matter of good proportion, this difference will not be exaggerated, but will follow the Greek standard. (Fig. 173.)

C. *Choose the paper.* The next step is to select the size, color, and texture of the card or sheet of paper on which the lettering will be placed.

D. *Plan margins.* Decide whether the rectangle is to be vertical or horizontal, and plan a well proportioned oblong, with the margins drawn according to the "Law of Margins." (See Fig. 165.)

E. *Lightly sketch in the letters.* In order to obtain a good arrangement, the shape of the entire mass must harmonize

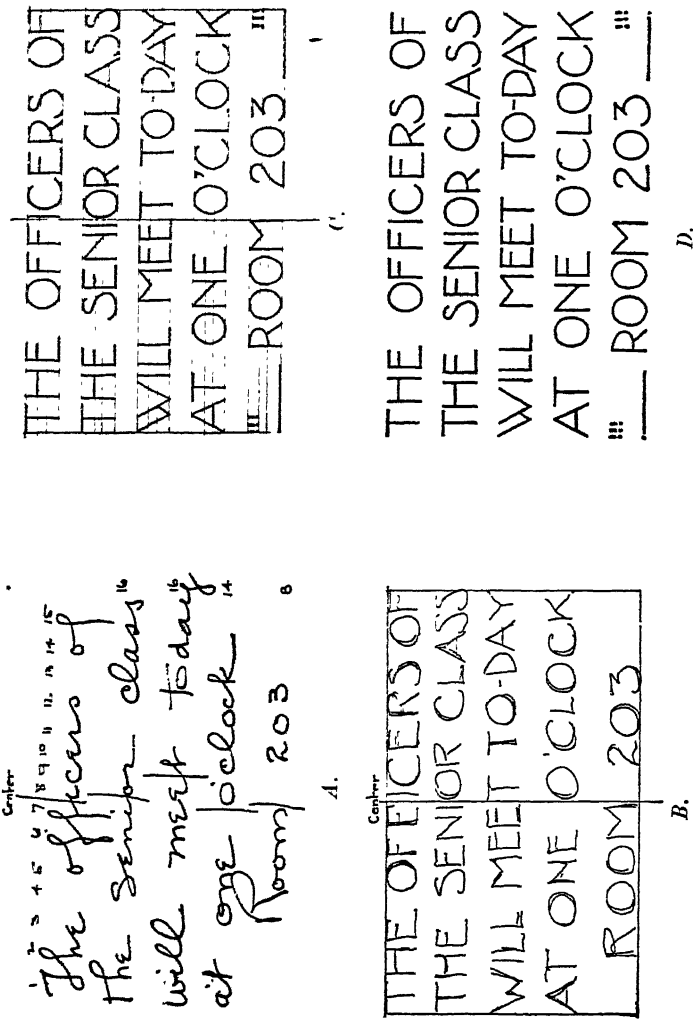


FIG. 172.—Four typical steps in lettering.

with the shape of the rectangle inside the margins. The first written paragraph should be studied, and so divided into lines that the lettering will be balanced on the page. Count the letters, in order to have the same number on both sides of the center line. The space between each word should be counted as a letter. Then, using a medium pencil, so that the work can easily be erased, sketch the letters, very lightly. This step is merely to place the letters, not to form them, for adjustments will be necessary later.

FIG. 173.—A simple free-hand alphabet.

Since lettering is designing, the space between letters, the spaces between words, and between the lines, becomes a problem of the fine adjustment of masses of dark against light, and of keeping as orderly and harmonious a shape as possible for the outside edges of the block of printing. If a line will not come out to the edge, it may be completed by a simple, consistent line or spot, such as a dash, or a few dots. If it is remembered that this device is used only in order to balance the page it will not be made too conspicuous. The spaces between letters should be so arranged that the word will seem a unit rather than a collection of separate letters. The way to do this is to adjust the background spaces so that there appears to be the same amount of background around each letter. Since some letters are wide and some narrow,

some light and others heavy, the spaces between letters should not be alike. If the spaces are alike, the narrow letters, such as I and J, will appear crowded, while such letters as A, T, V, and W, which have a great deal more background space will seem too far apart. The spaces between words are usually the size of an ordinary letter, as the letter o. If words are much closer to one another than such a space, they are difficult to read. They may be somewhat farther apart, but not too far or else the eye must jump from one word to the next and the effect of unity is lost. The space between the lines is usually a little more than half the height of the capital letter, but this is variable. The space between lines should be just wide enough to make it easy to read the text, but narrow enough to make the block of printing appear as a unit,—a well distributed pattern which makes an even gray tone against the background. This pattern may have the effect of a light gray if the letters are delicate in line and in form, or it may be a rather dark gray if formed of sturdy letters. But the spaces must be so well adjusted that the sheet looks balanced and of an even tone when it is held off at a distance or looked at through half-closed eyes. If it seems "spotty" and shows irregular paths of light among the darks the page will lack rhythm.

F. *Guide lines.* After the preliminary sketch has been made to show shape harmony in its general mass, balance in all its parts, and easy, rhythmic movement, it may be trued. The first step in the finishing process is to draw guide lines. Measure the height of the lines of lettering, and the spaces between, and draw these lines very lightly, using a ruler. If they are faint enough they will not interfere with the legibility of the lettering, and may be left if the work is to be finished in pencil. It is well for the beginner to draw either three or four guide lines for each row of letters. When four lines are drawn the base and the top lines indicate the height of the capital letters, and the tallest of the lower-case letters,

b, d, f, h, k, and l. The two inside guide lines mark points which are somewhat above, and somewhat below the center line, so that the proportions of the letters will follow the Greek standard. (See Fig. 174.) The upper of these inside lines—the one which is drawn slightly above the center of the space—will indicate the height of the upper division of the capital letter B; the cross bars of E, F, G, H; and it will locate the swing of the S, and points for the strokes of K, W, X, etc. This line also marks the top of the lower-case letters, such as a, c, e, o, and n, and the body of the letters b, d, h, and k. The lower of these inner guide lines—the one which is slightly below the center—establishes the place for

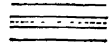


FIG. 174.—This suggests a method of drawing guide lines for lettering. The upper of the inside lines is drawn slightly above the center and the lower line the same distance below the center. The center line is indicated here by a dotted line merely for the purpose of comparison, so that the reader may see that the inside guide lines avoid mechanical divisions. They mark points which are more than one-half and somewhat less than two-thirds of the width of the entire space.

the cross-bar of the A; the meeting point for K, M, and Y; and the point for the termination of the lobe of P and of R. (Fig. 173.) For the lower-case letters, this line is used to locate the cross-bar of e, and points on k, s, and x. The descending lines of the lower-case letters g, j, p, q, and y are somewhat shorter than the height of the stems of b and d, as they rise above the body of the letter.

When three guide lines are used, the center line serves merely to assist the worker to judge spaces, and the divisions of the letters should be drawn slightly above or below that center line. It is important to remember that all divisions should appear to be on the same line above or below the center.

G. *Carefully draw letters and space letters and words.* The last step in lettering is to give careful attention to the construction of the letters. (It is essential for the beginner to

refer to the model alphabet constantly. The faint sketch will help to place the letters, so that the entire attention may be given to the proportions of the letters and to the final adjustment of spaces. It is important to see that the width of the letter is in good proportion to its height; that the cross lines divide the letters into well related spaces; that all the cross lines above the center follow the same line, and that those below the center are on a line, so that when the eye follows along the rows of letters it travels an easy, orderly path. All lines which are intended to be vertical and horizontal must be really so; and if the letters are to slant, they must all incline at the same angle.

A simple alphabet is illustrated in Fig. 173. This type of alphabet is easy to learn, and it may be varied in many ways. The letters may be made taller or broader, and serifs may be added if desired. It is a useful model, suited to a great many purposes.

CHAPTER XII

DRESS DESIGN

I. STANDARDS FOR JUDGING A COSTUME

The selection of a beautiful and becoming costume is a challenge to any woman's art ability and her sense of fitness. She must have in mind constantly that her dress should be an expression of her personality, and that all the lines, colors, and textures in the costume should be chosen to that end. In order that a costume may give the same sort of satisfaction that a picture or any other form of art may give, it must be so planned that it fulfils certain æsthetic requirements. And in addition to these æsthetic considerations, dress should measure up to the accepted standards for health, modesty, and economy.

The æsthetic requirements for dress are:

(1) Beauty in color and design. This may be achieved by the application of the principles of design and color. (See paragraphs on dress design in chapters on the principles of design.)

(2) The effect of simplicity as opposed to gaudiness. This results from an understanding of the Principles of Emphasis and Subordination. (Page 141.)

(3) Suitability to the person and to use. Suitability to the individual and to use are applications of the Principle of Harmony.

(4) Genuineness, as against imitation. Honesty and sincerity in dress are the outward expression of one's ethical standards.

Suitability to the individual. One must understand the relation of personality to clothes in order to appear well dressed. The person who is inclined to be a slavish follower

of fashion should realize this important truth: There is no one style that is consistent for all types, but there are so many possible adaptations of a style that every woman should attempt to make the right selection for her personality.

Factors in personality. In analyzing anyone's personality such questions as the following are pertinent: Is she conservative, or an extremist? Is she of the athletic type, suggesting a mannish style of dress; or is she exceedingly feminine, calling to mind dainty ruffles and soft materials? Is she dashing and forceful so that she can wear striking designs and colors and still be seen as a distinct personality beyond her clothes, or is she quiet and retiring? If she is very quiet she will be entirely eclipsed by clothes and designs that are too striking. The quiet person will need to select clothing that is not conspicuous, and she should wear some accent in color, or light or dark, in order to supply some of the sparkle which her personality lacks.

Just as there are designs for every type, there are colors which are particularly suited to brunettes, and others which are excellent for blondes. Because clothes show so much of one's individuality when they are worn, it is worth while putting enough thought into their selection to make them the best possible self-expression. A painter can not express harmony more perfectly on canvas than a woman can when she chooses a costume that is beautiful in all its parts, and which perfectly expresses her individuality.

When a costume appears suited to the wearer, the first requirement for appropriate dress has been fulfilled. The second requirement is that all the garments which are worn at one time should appear to belong together. Frequently in an impulsive moment a woman buys an attractive, becoming hat. It may not look well with the other things that she has, but she does not think of that. Next, a handsome pair of shoes is purchased. They are not quite right for anything

in the wardrobe, but they are "good looking." A dress is selected on the same basis—it fits well, and is beautiful in color, but it does not look well with the hat or the shoes. Then comes an occasion when the short-sighted buyer needs to wear her new hat, shoes, and dress. She looks at the things that she has purchased and suddenly realizes that they cannot be worn together. When she sees her mistake she has learned the first principle of good buying (which is also the first principle in design), namely: *things which are to be used together must be harmonious.*

Planning a wardrobe. One does not need a large wardrobe, but something is needed which will be appropriate for different types of occasion. The number of costumes necessary depends upon one's social and business position. The average woman has use for five kinds of dresses. The school girl and the woman who has few social demands need fewer than this, while some women need more. The different types of costume are:

(1) The dress to be worn in the house.
(2) The dress for the street or for business.
(3) The dress for afternoon occasions.
(4) The evening dress for formal wear.
(5) The suit for sports wear.

There are four factors which may make for difference among these costumes. The first is in the materials, the second, in the choice of color, the third, in the design selected, and the fourth in the trimming or decoration on the dress. For example, a lustreless silk dress, such as heavy crêpe de chine might be made with ruffles on the skirt, short sleeves, and a fine lace yoke, and it would serve the purpose of an afternoon or a dinner dress. The same silk might be chosen in a conservative color and if made very simply with tailored cuffs and collar it would be suitable for business or street wear. The woman of taste will never be over dressed. If there is a question in her mind as to the proper choice for any

given occasion, she will always choose the simple thing. She may wear her sports suit for the street and for school or business, but never her dinner dress or her afternoon dress. If she uses her sports suit for actual participation in strenuous games it may be slightly different in type from the suit she would choose if it were for milder games, for vacations in the country, for motoring, or for attending games. However, she can find one intermediate type that will be suitable for all these uses, and if she has such a costume, it will be useful in bad weather for business, and it will serve many other occasions. The house dress will be one which is easily laundered, simple, and fresh looking. The afternoon dress may also be the dinner dress, and it will do for many occasions, such as for church, the theatre, or an evening in the home. The street dress will serve many occasions if it is so planned that it may have different vests or collars of varying degrees of fineness. With a simple, smart street dress, and one other somewhat finer frock one can be appropriately dressed at any but very formal occasions.

Health, modesty, and economy in dress. The three additional essentials, health, modesty, and economy are quite as important in dress as the æsthetic requirements. A person can not be truly well dressed if she is conscious of her clothes. It is always difficult to forget one's dress if one has a feeling of inappropriateness or of discomfort. The physical discomfort of wearing unhealthful clothing is as disturbing as the consciousness that one is unsuitably dressed. Waists, skirts, sleeves, and shoes, which are tight, are unhealthful because they hinder the free movement of the body. Furthermore, since tight clothing interferes with graceful, rhythmic movement, it lacks beauty.

It is recognized that a thing which is considered modest in one generation is condemned as immodest in another, but there are certain standards which are held by people of high ideals of any period. Painted faces, short tight skirts, and

extremely thin and low cut waists are among the violations of ethics in dress.

Problems which involve economy must be answered by the individual, for dress should be consistent with one's means and regulated by the customs of the community in which the person lives. Every one should try to look as well as possible, but it should be recognized that good taste and extravagance are not synonymous. The economy of a dress is very largely determined by the relation of its cost to the number of times it is worn with satisfaction. If the material wears out too soon or the dress quickly goes out of style or proves unbecoming, so that it is discarded before it has rendered the maximum amount of service, the dress is really expensive. The intelligent application of art principles will help to solve the problem of economical dress to the satisfaction of one's desire for beauty and the need for economy.

The economy of good structural design in dress. The study of several historic costumes with the idea of discovering what makes the clothes look queer and old-fashioned, will show one that this does not result from the decoration, but from the silhouette—the structural design. (See Fig. 175.) If one were to paint out every bit of the detail and keep only a black silhouette, a grotesque costume would still look queer. If several of these silhouettes are compared, one will find that in all the costumes where the structural design follows the lines of the body in a general way,—that is, where the silhouette does not go in suddenly at unexpected places or out unexpectedly at others, the clothes will look well even though they are much older than some of those which are now amusing. Thus it is seen that the silhouette or the structural design must be so planned that it is not extreme in any way, if it is to look well until it is worn out. Dresses should be neither extremely tight nor full, long nor short. It is said of some dressmakers that one can always count on their things looking well for at least three years.

By studying the clothes made by these dressmakers one discovers that the effects are not due to genius—the same thing may be accomplished by anyone if conservative styles are chosen. It should be noted that a conservative style is

FIG. 175.—(*Adapted from Giafferi, "L'Histoire du Costume Feminin Francais," Edition Nilsson, Paris., A. Gerbel, New York, distributor.*)

Costume of the year 1487. This dress is beautiful in its simplicity. There is unity in its structural design, and in a general way it follows the lines of the body. Its decorative design is appropriate in treatment, reserved in amount, and it is so placed that it enhances the beauty of the structural lines of the dress. It is only when fashions are far enough in the background that they are likely to be looked at impersonally and judged as any other work of art is judged. Historic costumes are the main source of inspiration for costume designers, and for that reason it is important that they should be judged solely according to their design merits.

one in which all the extremes are avoided. Skirts should be of average length, so that when faddists are wearing theirs extremely short, conservatives are enjoying a modest length; when the next season brings a long skirt these sensible people

may be wearing theirs a little shorter than the faddist, who had to discard all her short skirts, but the conservative dress still looks well. The dress may be so planned that variety can be secured by a change of vest, collar, tie, or beads. The degree of conservatism which a dress should show may be somewhat influenced by the material of which it is made, and the occasion for which it is to be used. For example, a summer dress of thin inexpensive material which will obviously last but a short time may reasonably be made up in a less conservative style than a sturdy fabric, such as wool, which will be used for business or street wear.

The person who dresses on a limited income should remember that strictly seasonal fabrics are not economical. While most materials may be worn throughout the year, fur trimmings, and a few fabrics, such as velvet and organdy, are suitable only for certain seasons, and if such materials are chosen the usefulness of a dress will be limited.

If a girl or a woman wishes always to appear well dressed she will not plan her wardrobe entirely on the principles of what "they" are wearing, but will study her individual style, the lines of her figure, and her coloring, so that she may in a sense set her own fashion. No one wishes to look really "out of style." The most satisfactory plan is to avoid conspicuously "fashionable" clothes; and to select instead, conservative and beautiful lines and colors which reflect the tendencies of the prevailing mode, and, at the same time, express the individual.

CHAPTER XIII

DRESS DESIGN (Continued)

II. HOW TO PLAN A DRESS

In the hope that this discussion may be of some assistance in helping to plan a wardrobe which is economical as well as beautiful, some of the specific things which must be thought of are put into a list of considerations, even at the risk of repeating some of the points which have already been discussed under the heading of dress design in each of the art principles. If buying is done without a plan the wardrobe is likely to contain too many things for one type of occasion and not enough for another. When a new hat, dress, or coat is desired a mental stock should be taken of the clothing one owns, so that the type of frock which will fit best into the wardrobe may be chosen.

Selection of material. When selecting a dress one should consider the occasions for which it will be used, and the hat, coat, shoes, and gloves that would be worn with it. Since all the details of a costume should be related in idea as well as in texture and color, the dress material can not be well chosen without due regard to every item that has been mentioned.

Texture. The materials which are being chosen for a dress should be suited to its use and to the type of its design. For example, stiff wiry fabrics adapt themselves to severe tailored effects, and should be worn with tailored hats and shoes. They do not drape well, while the soft fabrics which drape beautifully do not successfully fall into the straight lines of plaits. They are more successful when made with flowing

lines, and worn with less severely tailored hats, coats, and shoes. Textures which are most becoming to the individual should be chosen. The texture of the skin should be considered when selecting a dress and its accessories. For example, pearls and very delicate silks are in harmony with a skin of fine texture, and are so inharmonious with a rough skin that the face will seem harsh by contrast. A hard shiny surface would be very unbecoming to a stout person, since it would catch the lights and make the figure look larger; it would also be unbecoming to an older woman who is a bit tired looking. Its severity accentuates the angles of the face and figure, and emphasizes the lines in the face. It takes an average or a slender figure to wear hard surfaces successfully, and a fresh, or youthful face. On the other hand, soft and lustreless fabrics temper the harsh lines of the face, and will appear to reduce size if chosen in the proper colors. In combining different materials there should be a nice adjustment of textures. Those which are too much alike are monotonous, while those which are extremely different will appear incongruous. Some textures which make interesting combinations are: wool fabrics with a surface which resembles serge, used with a crisp taffeta, or with satin; wool suits or dresses with vests of pongee, linen, or piqué; Georgette crêpe used with fine wool, taffeta, or satin. These will suggest the types of texture which seem harmonious enough to be related, yet varied enough for interest. When textures are combined in a dress one usually serves as a trimming note, for enrichment. For that reason it is used in a smaller amount, and its texture should be as fine, or finer than the material of the dress. One does not want the trimming to look commoner than the dress. For example, a coarse cotton collar would not be used on a fine dress, though organdy or batiste would be good. There are no hard and fast rules for combining textures, and success depends very largely upon an understanding of harmony.

There are, however, some textures which anyone could combine with a reasonable amount of assurance, while others need such careful adjustment that only a person with unusual skill can obtain a good effect. This skill comes from experience and observation.

Plain and figured materials. After the texture has been considered one should decide whether the dress should be made of plain or figured material, or if it should be a combination of the two. Every one can wear plain fabrics, but when a figured material is desired there are many factors which have to be considered before a wise choice can be made. Suppose the person who is selecting the dress has a normal figure, and has decided that she would like to have a surface pattern. She will review the five art principles in their various aspects, and see if the design of the material she is considering measures up to the art standards which it should.

One very quickly tires of dresses with conspicuous figures in the pattern, so it is more economical and more desirable in every way to select designs in which the values are so similar, and the figures so close together that the effect is of a quiet, unobtrusive surface. In selecting figured material one should look for a pattern in which the shapes are harmonious. A large area covered with triangles and circles, or squares and circles, or similarly unrelated shapes, gives a sense of disorder which destroys harmony. For the sake of interest there may be a moderate amount of variation in the shapes of a surface pattern, but if there is too much variety it is not consistent for so large an area as is used in a whole dress. When figured materials are used the designs should be dignified, and in keeping with the idea of wearing apparel. Realistic treatments of birds, butterflies, flowers, and landscape effects are among the designs found in dress materials which are not suitable for wear. Conventionalized or geometric designs are appropriate for this use, and may be very interesting. (See Fig. 176.)

If the material is figured, the pattern should show a beautiful proportion in the sizes of the details. For example, in choosing a striped material, one in which the stripes are of a different width from the spaces between is more interesting than one in which the spaces and stripes are alike. Plaids which have lines and spaces beautifully varied are agreeable,

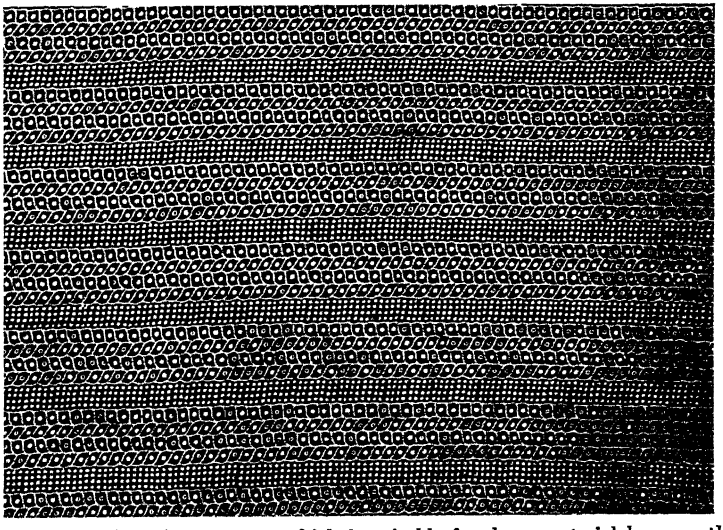


FIG. 176.—A surface pattern which is suitable for dress material because the forms are conventionalized, the design is well distributed, and the colors are close in value.

and when plaids are planned to show oblongs in their general effect they are apt to give more satisfaction than those which are designed in a series of squares. The scale of the pattern should be suited to the size of the person. One would associate small figures, dainty patterns, and exquisite things, with the small person; while the larger, more dashing individual suggests larger, bolder patterns. Of course, no one who has good taste in dress will use very large, conspicuous patterns, but within the range of suitable designs this distinction in scale is very easily made.

If the proportions of the person are not ideal the dominant lines of the pattern may be chosen to help bring the proportions more nearly to those of the average figure. The short person may choose designs which will carry the eye up and down the length of her figure, but the person who is large will not select materials with any outstanding pattern, because they will make her look larger.

While one always enjoys looking at dress materials which show no movement, it is sometimes desired to have a design either woven in or printed on the fabric. In such cases one should be sure that the lines in the pattern lead the eye easily and simply rather than jerkily over the whole fabric.

The amount of emphasis in dress material varies with the size, and the personality of the individual, and the occasion for which the dress is planned. As a general rule the entire dress will be plain or subdued in pattern, while more emphasis may be seen in the smaller amounts to be used as trimming.

Color in dress fabrics. The colors used in the costume should be becoming to the wearer. Values should be selected with great care, and all colors should be in the values which will bring out the wearer's best points, and subdue those which may be undesirable. The choice of intensity in color will be influenced by the person's coloring, age, size, personality, income, and the occasion for which the dress is to be worn. The colors should be combined in such a way as to beautify each other. The amount of bright color that is used in dress is an index of the taste of the wearer. This amount will vary with the person, as well as with the surroundings in which the dress is to be seen, and the number of times it must be worn. (See Chapter XVI.)

Selection of a design for a dress. Having decided that the dress to be chosen is to be of a certain general type, as, for example, a straight line school dress, or a draped evening dress, and having also selected the materials with this style

in mind, one is ready to choose a definite design. The art principles should be applied in the selection of the design, whether one intends to buy the dress ready-made, or have it made, or make it oneself. When starting a plan for a dress design the general lines are considered first, and the trimming later. These two steps are called the structural and the decorative designs. Shape harmony is the most important consideration in planning any beautiful and economical structural design. When the dress is seen in silhouette it should bear some resemblance to the human figure, yet it should not follow the lines of the body too closely. (Compare Figs. 26, 27, and 28.) Variations from the lines of the figure should be more in the nature of transitional than of contradicting shapes, and they should come at logical points, as at the shoulders, hips, or bottom of the skirt. (Fig. 29.) The separate shapes which go to make up the structural design, such as the divisions of the skirt, and the waist with its sleeves, belt, collar, and similar divisions, should all have enough in common so that they appear at first glance to belong to the same unit. The lines which form the edges of these shapes should be consistent with each other, and should show definitely that they are designed to beautify a human figure. The next consideration is to see that these lines and shapes bring out the best features of the individual for whom they are being selected.

The size of every part of the structure of the dress should have a fine relationship to every other part. The length of the waist should be interesting in combination with the skirt; for example, one should avoid the position of a waist line which divides the dress into two equal parts, and should seek a more subtle proportion for this important structural division. All other subdivisions should be equally well spaced. If the dress is for a very large person the details would be on a larger scale than if it is for a small person, and if the material is of a coarse nature the scale of the parts,

such as tucks and cording would be larger than would be necessary for a very fine material.

The costume as a whole should be studied in order to note the direction in which the eye travels in looking at it. For example, if it is desirable to add height only, it is well to see that a vertical movement predominates; and if there are a number of vertical lines, they should be neither so close together nor so far apart that the eye travels across the figure, thus increasing the width. (See Fig. 65.)

Since the human figure is made up of curved lines, the most beautiful lines for a dress are usually those which show some slight degree of curve. Every costume should show one dominant direction of line, and the other lines should not be equally important.

Extreme cuts in the structure of the dress should be avoided because they seem to stamp the date upon a dress and make it go out of style quickly. They also make for lack of conservatism, and such clothing would not be economical. The size and outline of the wearer's figure, and her personality will determine the amount of emphasis which the individual should have in the lines of her dress. When plain materials are used one may use an emphatic line in the construction of the dress, but if the dress material is figured, the structural design should be simple. There is so much emphasis in a surface pattern that a style which is too varied in its lines will make the dress confusing. The guiding principle in planning the structural divisions of a dress is to work up to desirable points and away from undesirable ones. For example, if one's hips are too large, one should avoid using any construction line that will emphasize the hip line. If the bust is large it should not be emphasized by placing a structural line across the bust or by pulling in the waist, but the waist may be built out; and so on,—working always for a structural design which will make the figure look as nearly like the normal figure as possible. Where it is not possible

to disguise an objectionable feature sufficiently, call attention to some other point by placing a note of emphasis there.

The figure should appear to be balanced when the person is standing, sitting, or walking and the structural design of the dress is of great importance in securing this effect. The figure should balance on both sides of the center line as well as above and below the center. (Fig. 97.)

The structural design of a dress, then, must be made up of shapes and sizes which are beautiful in themselves, and in relation to the human figure; if it is to bring out the best qualities of the person for whom it is designed, it will have its dominating lines so skillfully placed that they will subordinate the unattractive features and emphasize the good.

Decorative design in dress. If a dress is to be beautiful it is essential that the structure of the dress itself be beautiful. If it is a really good structural design it may need no trimming at all. If a plain dress is not desired, then a simple decoration should be planned which will make the dress richer, but will not be so conspicuous that one will overlook the beauty of the lines and material of the dress. Frequently one becomes so interested in planning decoration that all restraint is lost, and when the dress is worn the trimming is so prominent that it overshadows even the wearer. The personal appearance will determine the best position for the decorative design. If the person is attractive, and has a normal figure, any place that seems to be consistent for decoration may be selected for the principal and subordinate centers of interest.

Beautiful decorative effects in dress may be secured through the use of well planned tucking, cording, or bands of the same material as the dress. This "self-trimming," as it is sometimes called, is always good, and if economy is a consideration it has the advantage of being inexpensive. Simplicity and dignity are secured in this way; they can never be gained by the use of cheap lace and trimmings. Similarly,

a few decorative embroidery stitches, or a simple bead design, may add much to the attractiveness of a dress and yet add very little to its cost. The methods and materials for decoration matter far less than the fact that fine quality, simplicity, and unpretentiousness are desired.

After having decided how, where, and how much to emphasize, the shape of the decorative units must be chosen. The shape of the design should appear to grow out of the structural design, and not look as it had merely dropped there, or had been grafted on from some foreign source. In order that the design may be dignified enough for the dress it should be so far removed from a naturalistic idea that it will simply resolve itself into a group of beautifully related shapes and sizes. There may, perhaps, be a reminiscence of a flower idea, but it is well that one should have to search for the original source. The purpose of the dress and the materials of which it is made will influence the choice of materials for the trimming. If, for example, it is decided to have a beaded design, the vast difference between the textures of wooden and pearl beads must be considered. Without regard to size or color, the pearl beads would be suited only to fine materials and to evening gowns, but wooden beads are suited to many occasions, and are particularly good for simple dresses.

After having decided how much design should be used, one must plan the relationship of all the parts within the design itself, in order that beauty and interest may result. The design and the stitches should be in scale with the material used. Heavy materials suggest a free, bold treatment, and delicate designs suggest a correspondingly finer texture. Care should be taken that threads and stitches are not so fine that the result looks too thin and weak for anything so large as a dress. Large women should avoid very delicate designs, which by contrast, would emphasize their size. The position of the decorative designs on the

dress should help to preserve the balance of the whole costume. With a view to making the design of the dress as a whole appear unified, rather than spotted or confusing, the decoration should be so planned that the eye will be carried to the different parts of the dress in the order in which it is desirable to emphasize them.

An attempt should be made to secure something distinctive in a dress, to lift it out of the commonplace, and make it individual. Distinction may result from the cut of the dress, or from a decorative note, such as an interesting collar or vest, a smart girdle, or unusual and attractive cuffs. The distinctive note should serve the purpose of making the dress smart, and should make it seem definitely to belong to the owner.

CHAPTER XIV

DRESS DESIGN (Continued)

III. ADJUNCTS OF DRESS

A costume can only give complete satisfaction when all its adjuncts appear to belong together. A sense of fitness is nowhere more apparent than in the choice of one's coiffure, and of the accessories which are worn with a dress.

Hats. How many women really know how to select a hat? Each season brings so many changes,—the crowns are higher or lower than on last year's hats, the brims are wider or narrower, and turned up or turned down, so that it is difficult to know what to select, unless experience has said that there are certain lines and some sizes that always seem to be particularly becoming. There are some principles that a woman can learn if she has not already discovered them for herself, which will serve as a guide in making a choice of hats. A reproduction of a newspaper advertisement showing some of the wrong hats for the different types of women is shown in Fig. 177. One can draw many conclusions from a study of this picture, and in observing what not to do, it will help to find out what to do. It will be seen that the following facts are generally true: The crown of the hat should be as wide as the face. Large faces are best in hats that do not fit too closely, but give an adequate frame or setting for the face. Lines which suggest circles, or parts of circles, in the shape of the hat or in its trimming, make the face look more round. If a dominant line of the face is repeated either in the hat or in its trimming, that line will be

emphasized; therefore, drooping lines, extremely long lines, or any outstanding feature, such as a long or badly formed

FIG. 177.—(*Courtesy of Stronge, Warner & Co., "Unbecoming Hats of 1894."*) This illustrates forcefully that lines and shapes are accentuated by the use of lines which repeat them, and by lines which contradict them. In every case here the use of transitional lines,—that is, those which come halfway between repetition and contradiction,—would have modified the peculiarities of these women.

nose or chin, should not have a repetition of that particular kind of line in the hat. When these lines are conspicuously contradicted the undesirable line will be emphasized just as

much as if they are repeated, and the best way to remedy the defect is to use lines just between the two extremes. People who wear glasses have the same problem as those whose features are over-prominent. They, too, need a brim on a hat, and some of the trimming placed at the front of the hat, for that seems to throw the features back. Faces with stern or hard features do not look well in turned up brims. These faces, too, need the softening influence that is obtained from the shadow of a brim. Faces that are too broad should not have trimming placed sidewise, but there should be a suggestion of height not so extreme that it will make a striking contrast, but with lines which tend that way. Similarly, the very long narrow face should avoid the flat hat, and the extremely high hats. Round faces look well in hats with the brim turned up slightly at one side, so that a varied line is given. Small faces do not look well in hats that are too large because they make the face appear smaller than it really is. Oval faces with normal features look well in irregular curves, not extreme, but graceful in line. In fact, the person with an oval face and regular features can wear almost any beautiful shape. Deciding upon the lines of the hat is only one step in the selection. Another is to see that the well chosen hat is well placed upon the head. These drawings show that when the hat sits too high on the head it looks strange because it is seen by itself and not as a frame for the face. It is just as bad when the crown is too large, for then it gives the impression that if the ears did not stop it, the hat would settle down over the eyes. The crown should appear to be securely placed upon the head, and then the lines of the brim may vary as it seems best for the lines of the face and the figure. Turbans or other closely fitted hats are worn most successfully by the person whose features are regular, and whose face is the right size for her figure. If there is any feature that is irregular or too prominent, such as high cheek bones, prominent eyes or nose, or very

high color, the turban should be avoided, and more or less of a brim should be chosen.

The arrangement of the hair. The size of the coiffure and the lines of its arrangement modify the lines of the face in very much the same way that the hat does. The coiffure must be the right size for the figure if it is to be beautiful. The size of the head is the unit by which the eye measures the proportions of the figure, and for that reason it is important that the hair be so dressed as to suggest the most flattering proportions for the entire body. The normal figure measures seven and one-half heads high, and when an artist desires to express unusual refinement in a drawing he makes the head smaller than the normal unit, and constructs a figure which measures eight heads high. Fashion illustrators sometimes exaggerate this impression of refinement by drawing figures measuring nine, ten, eleven, and even fourteen heads high. On the other hand, cartoonists who wish to show the opposite of grace and refinement secure that effect by making the head lengths go into the body about four and one-half or five times. Therefore, it will be seen that a style of hair dressing that conforms rather closely to the size of the head will lend grace to the body, while hair that is dressed to make the head look large will make the figure look heavy and clumsy.

One should watch the pattern that the lines of the hair create. It is desirable to secure a beautiful line in the contour of the coiffure, and a graceful pattern against the face made by the arrangement of the hair. A person who has regular features, and a face of average proportions, may wear any beautiful coiffure that is in scale with her figure. If, on the other hand there are lines or proportions that should be modified one needs to have a working knowledge of the Principles of Harmony and Proportion. It must be remembered that the shape and the lines of the face are emphasized when they are repeated, and when contradicted;

and that they are modified by the use of transitional lines. It must also be remembered that lines may be so used that they will appear to alter proportions.

One's hair should be dressed in a style that seems suited to one's personality. A style that would be becoming, if only the lines of the face are considered, might be entirely unsuited to the type of person. A style which would be smart and attractive on a pretty, sparkling, slender girl might be ridiculous on an older, stouter, or more conservative person.

Later in the book suggestions are given for modifying the effect of undesirable features and proportions through the lines of the coiffure. It is easy to recognize the design reasons for the suggestions, and when they are understood the reader will be able to modify other physical shortcomings that are not included in this list.

Shoes. Shoes may mar an otherwise successful costume if they are not well chosen, and too frequently they do not give a sense of being suited to the occasion. Shoes which are intended for street wear should not only be comfortable, but they should look comfortable. Shoes with high French heels and long pointed toes look out of place with street clothes, and they are not made for exercise. Such shoes are planned for evening wear and are not in good taste for business or for school.

Hosiery. The hosiery is as important a note in costumes as the shoes, and perhaps the most outstanding single principle that should be followed in the selection of shoes and hosiery is to keep them inconspicuous, and a unit with the dress. This means that the values should be similar to each other, and about the same as the dress, or darker than the dress, in order to make a good base for the figure, and to avoid creating a center of interest at the feet instead of at the face.

SUMMARY. The well dressed woman may be said to wear

inconspicuous clothing; her dress and hat are simple in design, yet they have an individual note that expresses her personality and distinguishes her costume from all those around it; her shoes, hose, gloves, hand bag, and jewelry are fitting accessories, and while not calling attention to themselves, they serve to make the wearer and the costume a perfect unit.

CHAPTER XV

DRESS DESIGN (Continued)

IV. A TABLE OF SUGGESTIONS FOR PERSONS WHO HAVE UNUSUAL PROBLEMS IN DRESS

The Stout Figure

Becoming	*Unbecoming*
One material or color, used throughout the costume, rather than breaking it up into separate parts. Soft, yet not clinging, fabrics. Fabrics with dull surfaces.	Lustrous fabrics. Taffetas, and other stiff fabrics. Plaids, or any outstanding surface pattern.
Dull colors in large areas. Black, or very dark colors if the silhouette is good. If the outline of the figure is poor, use fairly dark colors to reduce size, but not so dark that they will call attention to the silhouette.	Bright colors in large areas.
An unbroken silhouette, if the figure is normal.	Unnecessarily full, long garments. Too tight corsets and brassieres.
Loose lines, semi-fitted, rather than tight effects. Transitional lines in the dress rather than extreme curves or angles. Vertical movement in the lines of the dress. The emphasis on the dress up and down the center front, with the principal accent at the throat, and a subordinate one at the bottom of the skirt.	Full drapery. Tight drapery. Ruffles. Horizontal movement in the lines of the dress.

Becoming	*Unbecoming*
The curve of a surplice waist is an excellent line for a stout figure, provided the curve is not carried too far out toward the hips. Carried too far it will broaden the waist and hips.	Exaggerated curves or angles, for the curves repeat the lines of the figure and the angles contradict them, therefore both call attention to the size.
Panels of average width. Pleats, panels, etc., that start above or below a point where the figure is large.	Very wide, or extremely narrow, panels. Panels or overskirts that spread or flutter as one walks. Pleats, panels, or any trimming ending or starting at a point where the figure is large.
	Thin pipings. Fluffy fichus. Large circles on hats or dresses.
Comparatively long skirts.	Short skirts. Very long skirts. Flaring skirts. Deep yokes on skirts.
A normal waist line, or slightly above or below it.	A high waist line, since it makes the waist appear broader. An extremely long waist line, for it makes the upper part of the figure too heavy for the lower part. Belts or sashes which are conspicuous in width or in color.
Set-in sleeves. Normal point for the end of the shoulder seam, or a trifle shorter seam.	Tight sleeves. Flowing sleeves. Transparent sleeves. Sleeves lighter than the dress. Kimono sleeves which give an effect of breadth, owing to looseness under the arm. Tassels or streamers on sleeves. Sleeves ending at a place of unusual width on the figure.

Becoming	*Unbecoming*
	Wide, light cuffs on a dark dress, for the eye will travel across the figure, adding width.
Simple neck lines, preferably long lines.	Tight collars.
	Freakish or conspicuous shoes. Shoes with slender, high heels.
Flat, short-haired furs. Dark furs.	
Hats of moderate size. Hats that suggest an upward movement. Hats with irregular lines in the brim, and a rather high crown. Hats with transitional lines rather than extreme curves or angles.	Small hats. Big hats. Flat hats. Round hats.
Hair dressed high. Hair well groomed. It may have a slight wave with rather large undulations.	A low or broad style in hair dressing. Tightly curled, or "bushy" hair.
	Thin, or very small pieces of jewelry. Tiny trimmings for hats and dresses. Very small accessories.

The Thin Figure

Lustrous materials. Materials which stand out some what from the figure.	
The silhouette of the dress showing a broken, rather than a long clinging line. Broken lines, and curved lines. Loose clothing. A horizontal movement in the lines of the dress. Fluffy laces on the waist, and soft fichus.	Severely straight lines. Angles in the lines of the dress.

Becoming	*Unbecoming*
The soft, full lines of drapery.	
	Long, narrow skirts.
	Flat tight waists.
Wide girdles and sashes (for the tall person).	
Kimono sleeves.	Sleeves so short that the bones of the arms are conspicuous. The type of line seen in a raglan sleeve, for it gives a flat chested appearance.
Light furs, if becoming to the complexion. Long haired furs. If the person is small, the scarf must not be too large.	
Hats with low crowns. Hats with drooping brims. Hats of average size. Hats with irregular lines.	High hats. Angles in the lines of the hat. Such stiff severe trimmings as wings or quills standing out from the crown of the hat.
	A high coiffure.

Narrow Shoulders

	A panel or vest effect which starts wide at the waist or hips and becomes narrower toward the neck. This makes a triangle with the point at the neck and the base at the waist and hips, thus narrowing the shoulders and broadening the waists and hips.
Sufficiently long shoulder seams.	
Broad lines in yokes and collars.	

Broad Shoulders

Becoming	*Unbecoming*
Lengthwise pleats, folds, or tucks, extending from the shoulders to the waist.	
	Broad lines in yokes and collars.
Hat with a relatively high crown and a fairly wide brim.	Very small hats.

Round Shoulders

Set-in sleeves.	Kimono sleeves.
The shoulder seam placed about one-half inch back of the normal shoulder line.	
Collars which will appear to straighten the curve of the back. Either have the collar long enough to hang loose from the neck to below the highest point of the curve, or have it short enough to fill in the space between the neck and the beginning of the curve. Then build out the waist line by having the waist full and loose in order to fill in below the prominent curve. This may be done by the use of a panel which hangs from the neck to the waist, turning back under a loose belt.	Collars which end at the curve of the back. Collarless dresses which are tight at the waist line.

Large Bust

Panels or vests.	
To build out at waist and hips.	To draw in the waist line.

Becoming	*Unbecoming*
A yoke line, jewelry, or some other conspicuous line which stops above or below the waist line.	Trimming at, or near, the bust line.
	Wide girdles.

Flat Chest

Full, soft collars. Jabots and fichus.	
Fullness over the chest by means of tucking or shirring the material into the shoulder seam.	Tight waists.

Large Hips

	A one piece, beltless dress hanging straight from the shoulders.
Emphasis up and down the center front of the dress.	Pockets at the hip line. Horizontal lines in the skirt placed near the hip line.
Average amount of fullness in the skirt.	Tight skirts. Very full skirts. Skirts that are narrowest at the hem.
A slight blouse at the waist line.	Tight, closely fitted waist.

Large Waist and Hips

To build out at the shoulders.	Broad panel effects.
The center of interest kept at the face and away from the waist and hips.	Sashes or wide girdles.
Long skirts, in order to add height.	
Hats of average size or slightly larger.	Small hats.

Long Waist, Slender Figure

Becoming	*Unbecoming*
The effect of a slight blouse at the boundary of the figure between the under arm and the waist line.	Surplice waist. Tight bodice.
Long lines in the skirt.	

Short Waist

To drop the waist line below the normal line.

Long Neck

Rolling collars. Round neck lines. Fluffy collars or fichus.	Flat collars. V-necks.
	Hat with upturned brim. Hat with high trimming.
Hair worn low at the neck. Hair worn over the ears.	Hair worn high.

Short Neck

Flat collars. Collarless dresses. V-necks.	Rolling collars. Broad neck lines. Strings of beads worn close around the neck.
Flat furs.	
Narrow brimmed hats.	Drooping hats. Hats with broad brims.
Hair dressed high. Hair worn to show the ears, or at least the base of the ears.	

Large Face

Becoming	*Unbecoming*
Rather large hats.	Small hats. Trimmings that are too small.
A coiffure of moderate size.	Too large a coiffure, for it may make the head too heavy for the body. Too small a coiffure, for it will emphasize the size of the face.

Small Face

Hats which are rather small. Trimmings which are rather fine in texture and in scale.	Large hats. Heavy hats.
A relatively small coiffure.	Too large a coiffure, for, by contrast, it will make the face seem too small.

Square Face[1]

Hat with an irregular line.	Lines in the hat which repeat the lines of the face. Lines which oppose the lines of the face.
Hair dressed rather high, and with a soft, irregular line.	Hair dressed wide over the ears. Hair parted in the middle.

Round Face[1]

Hats with slightly irregular lines. Hats with lines which carry the eye upward.	Hats with round shapes and lines which repeat the curves of the face.
Hair worn in an irregular line. Ears covered unless neck is short.	Hair parted in the center and drawn tightly back.

[1] For becoming necklines see page 40, and Fig. 30.

Becoming	*Unbecoming*
In that case leave the lower part of the ear exposed. Hair parted toward the side and arranged in an irregular line. Hair dressed high.	Hair dressed wide over the ears. Hair dressed in rounded shapes and lines.

Narrow Pointed Face[1]

Hat with medium sized brim. Hat with slightly drooping brim. Soft crown on the hat.	High hats. Tall, angular trimmings.
Hair worn low on the forehead, and in soft irregular lines. Moderate size in hair dress. Hair worn back from the cheeks.	Hair worn in a high, pointed knot at the top of the head. Hair so dressed as to cover some of the cheeks.

Retroussé Nose

A hat with a brim. Lines of the hair that do not repeat the line of the nose.	A hat that turns away from the face.

Prominent Nose

Hat with a brim. The brim may be somewhat wider in the front. Trimming in the front of the hat.	Turbans. Severe, tailored hat.
Hair built out in a soft, rather large mass. Hair built out over the forehead, in order to balance the nose. Hair parted on the side.	Hair parted in the middle. Hair drawn straight back from the forehead. Hair dressed high on the head. The large mass of the hair directly opposite the nose, so that the eye moves across that line when the profile is seen.

[1] For becoming necklines see page 40, and Fig. 30.

Prominent Chin and Jaw

Becoming	*Unbecoming*
Rather large hats. Hats with soft, irregular lines.	Small hats. Severe tailored hats.
Hair worn in a large mass at the top of the head and wide at the sides, above the ears.	Hair bulged out below the ears.

Receding Chin and Small Jaw

Hats of average size. A hat with a brim.	Large hats. Hats that turn sharply away from the face.
Small coiffure. Hair worn low at the neck.	Hair wide at the top and at the sides.

Prominent Forehead

Hat with a brim.
Hat worn low on the head.

Hair dressed low over the forehead to conceal some of it. A broken irregular line.	Hair pulled straight back from the forehead. Hair dressed wide over the ears and temples.

Low Forehead

Hair drawn back from the forehead.
Hair dressed rather high.
Hair parted in the middle.

Sharp Angular Features

Hats of medium size. Irregular lines in the hat. A brim which droops very slightly.	Severely tailored hats. Sharp, angular trimmings, as wings, quills, and sharp bows.

Becoming	*Unbecoming*
Hair worn in a soft, irregular line.	Hair drawn severely back.
Soft, large waves in the hair.	Hair elaborately curled, because it emphasizes harshness by contrast.

Large Features

	Small hats.
Hair worn in a broken line around the face.	Hair curled in small, close waves.
Hair worn smooth or in large loose waves.	Hair drawn tightly back.
Coiffure rather large.	Coiffure extremely large.

Glasses

Hat with a brim.	Hat turned sharply away from the face.
Hair worn in a soft irregular line over the forehead.	Hair drawn severely back from the forehead.

CHAPTER XVI

DRESS DESIGN (Continued)

V. COLOR IN DRESS

The essentials for fine color in dress are that the color scheme of the dress be beautiful as a unit and suited to its purpose, and that it be becoming to the person who is to wear it. In order to satisfy the first requirement, the colors for a costume must be selected and arranged in such a way that the principles of design are exemplified.

Color balance in dress. The "Law of Areas," which states that the larger the area the duller a color should be, applies very definitely to dress for street and business wear, but it is sometimes modified when one is selecting a costume for the stage, an evening gown, or sports clothes. In these circumstances it is quite suitable that the costume be bright in color if the wearer is rather small, so that there is a relatively small amount of brilliant color, and if she has a striking enough personality to avoid being eclipsed by her gown.

Colors in a gown must be so distributed that they will balance. When a woman wears a white waist with a dark skirt the skirt appears to overbalance the waist; however, if some of the value (not necessarily the same hue) of the skirt were repeated on the waist in a tie or a string of beads, the balance would be somewhat better; and it would be still better if a jacket or jumper were worn, which would bring a larger amount of the value of the skirt into the waist.

Rhythmic color in dress. One obtains rhythmic effects in color for dress in two ways. First, by the repetition of a color. This process is so closely akin to balancing through crossing or repetition that one cannot differentiate between

the two. Care should be taken to distribute these contrasts in value and hue so rhythmically that there is no tendency toward spottiness. The second way to secure rhythmic color is by the use of a transitional hue, value, or intensity to modify the harsh jump between two different hues, between very light and dark colors, or between dull and very bright colors. For example, a dark blue georgette dress with a white yoke and bright red-purple trimming might be made to show rhythmic gradations of color by the following method: the use of a white net collar coming over the blue would make a transitional value between the white yoke and the waist. The red-purple could be used in a band, and veiled by the blue georgette. It might show its actual color in a small amount at the front of the waist. The veiling of the red-purple by the blue gives a rhythmic gradation between the hues of the two colors, and assists in the completion of a unified effect.

Interesting proportions for color use. If the colors that are to be combined in a costume are quite dull, the Greek proportion of two parts to three will prove to be an interesting distribution. If, however, they are bright, or contrasting in value, it will require but a very small amount of one to produce this effect of two to three parts of attraction.

Emphasis in color for dress. In dress design the individual should be the center of interest, and the costume a background. The amount of emphatic color that can be used successfully varies, therefore, with the individual.

Harmonious color in dress design. Harmony in color depends very largely upon the application of all the other design principles, for as soon as any one of the principles is violated the unity of the whole costume is destroyed. In order that costumes may be harmonious their colors should be balanced or keyed, and the entire color scheme should be related to the coloring of the individual.

Color for Individual Types. The aim in choosing

colors for individual types is to select those which will bring out the person's best points and subdue the undesirable ones. Some of the factors influencing the choice of colors are:

(1) Light effects.
(2) Texture.
(3) The age of the person.
(4) The size of the person.
(5) The personality.
(6) The complexion.

Light effects. As daylight is very much more brilliant and trying to the complexion than artificial light, colors need to be chosen more carefully for daytime wear. Colors selected for evening wear should be seen by artificial light; yellowish lights, for example, will neutralize or destroy their complements, the purplish colors, and will put more yellow into their neighboring colors; the greens will look more yellow-green, the blues will look greenish, and the orange and red hues will look more yellowish.

Texture. The way a cloth is woven has such an important effect upon color that it must be recognized for successful color choices. A certain hue in a soft texture, such as pile velvet, fur, crêpe de chine, georgette, or tulle is easier to wear than the same hue in the brilliant hardness of satin or panne velvet. Similarly, white organdy or georgette worn near the face is becoming, while white satin, because of its sharp lights is exceedingly trying. The bright reflections of satin accentuate every curve of the figure, and therefore appear to add to its size; for that reason it should be avoided by stout women. Thin women should avoid textures like very soft crêpe de chine which fall in long straight folds, thus making them look thinner. They should choose soft taffetas and similar fabrics which break into lines taking several directions and appear to increase their size.

As much interest may be gained in dress through con-

trasts in texture as through color contrasts; for example, serge, poplin, or broadcloth may well be combined with satin, and crepe de chine or georgette with panne velvet or satin. Textures which are very similar, but not alike, such as crêpe de chine and Canton crêpe, are not interesting together.

Age of the person. Older women should not wear bright colors in large areas. Since bright colors have a tendency to harden an older woman's face small amounts of these colors should be selected to use as trimmings.

Size of the person. Cool colors seem to recede and warm colors to come toward one. The brighter the color the more quickly it advances. All bright colors are conspicuous, and appear to increase size; therefore large women should avoid them in dress, especially those which are both warm and bright. If a large woman's complexion requires warmth in color, she should choose the very dull warm hues. A woman who is stout and of good figure should choose values which will give the appearance of reducing her size. If the silhouette is poor she should choose values which will not call attention to the outline of her figure. Stout women should avoid strong value contrasts or color contrasts in the design of their dress materials, and they should not wear light waists with dark skirts, because the contrasting values seem to cut the figure in two.

Personality. People who are inclined to be rather colorless and who have a quiet and retiring manner are eclipsed by large amounts of bright color, while striking persons with dashing manners can wear any colors which are becoming to them, providing they wear them for suitable occasions.

Complexion. There are so few people who are perfect blondes or perfect brunettes that a table which merely states that blondes should wear certain colors, as blue, purple, etc., and that brunettes should wear other colors, as red, yellow, etc., is often misleading. There are so many varia-

tions in individuals, and each spectrum hue has so many different effects through its three properties that a mere table of colors will not solve the problem. For example, it has always been said that a blonde can wear blue; yet bright blue and dull blue have quite different effects, and light blue and dark blue are also different in their effect upon other colors. If she is a very pale blonde shall she wear a bright blue? or a very dark blue? This problem of color for individual types can be solved by knowing how to classify people, and by understanding what colors do to each other.

Effect of values upon the individual. Dark values take away color. People who are pale and colorless find that plain black worn next to the face makes them look tired and more sallow. If one has too much color, and wishes to tone it down, then black or other dark values are a good choice. Dark values seem to reduce the size of the figure, and call attention to the silhouette.

Very light values add color. If a person wishes to bring out the color in the complexion and hair, it would be advisable to wear white or some very light value next to the face. Light values seem to increase the size of the figure.

Values which are alike or similar neutralize each other. Men and women who have light hair and eyes, and not much color in the cheeks, seem to lose every particle of individuality when they wear tan or light gray clothes. Unless they have very striking personalities colorless persons are unable to overcome the handicap of the strongly neutralizing force of tan or rather light gray. Sometimes it is possible to place a dark value near the face in a collar or tie, and, if the person is not too colorless, this accent may bring sufficient contrast to relieve the monotony. Middle values blend in with the values of the average background, and do not call attention to the outline of the figure.

How intensity affects the coloring of an individual. Intense colors will force their opposite or their neighboring colors,

depending upon which predominates in a person's coloring. The duller a color becomes, the less power it has to force another color.

The effect of intensity on contrasting colors. Since complementary colors force each other, any desirable color in the complexion may be emphasized through their use. For example, a slightly rosy flush on the cheeks will be intensified by the use of blue-green or green. On the other hand, if a person has any undesirable color in her complexion, she should avoid wearing the intense complement of that color. For example, if a person's face were inclined to be suffused with a reddish-purple flush, any of the contrasting colors which contain large amounts of green, yellow-green, or blue-green would intensify that flush.

The effect of intensity on related colors. The color of the hair, eyes, or any color in the complexion may be emphasized by repeating the same hue in a lower intensity, or by the use of a small note of the same hue in a bright intensity. For example, blue eyes may be intensified by wearing a dull blue dress, or by a small amount of bright blue on the hat or dress. If the bright color is used in too large an amount it will overpower the color of the eyes, and tend to neutralize them.

How to subdue color. A color may be subdued by combining with it a slightly different hue which is rather low in intensity. To illustrate this point, let us take the problem of subduing the yellow in a sallow complexion. If the exact hue of the skin were repeated one would be conscious of the presence of a great deal of yellow. But if a dull red-orange (reddish-brown) were worn, the yellow of the skin and the yellow in the red-orange would tend to blend with each other, and the odd hue, the red, would be the color which would stand out. Such a color would have a flattering effect upon the skin.

The detracting effect of a somewhat trying color may be

remedied by the use of a becoming color worn between it and the face.

Types of complexion. People may be grouped according to type of coloring and classified in three main groups, but within these groups there are many variations. These classifications may be designated as: *The Cool Type, The Warm Type,* and *The Intermediate Type.*

These terms "cool" and "warm" as applied to the hair and complexion are only relative, and it is essential to have a very definite idea of what the terms denote as applied to individuals before going any farther. All flesh colors are more or less warm, because they fall on the warm side of the spectrum, with the exception of gray hair and blue-black hair, which are distinctly cool; brown eyes are warm, blue eyes are definitely cool, while bluish-gray and greenish-gray eyes are cool.

By turning to the color chart and looking at the warm colors it will be seen that although all the colors between yellow and red-purple are warm, they are not equally warm. Red and red-orange are the colors of flame, and are the warmest of all the colors; even the orange is distinctly warm. Then looking at the yellow, one recognizes that while it belongs in the same group with red and red-orange, it is decidedly cooler; the yellow-orange, which would come next to yellow and toward orange, gives one a much less positive impression of heat than orange and red-orange; likewise red-purple is a cooler variation of red than red-orange, or flame color. Thinking of these hues, yellow, yellow-orange, and red-purple as the cooler tones of the warm hues, and then adding some blue to that combination, one has a color scheme which is distinctly cooler than one which includes yellow-orange, orange, and red-orange. When this difference is recognized one has a basis upon which to start a classification of the warm and cool types of individuals.

Keeping in mind the color comparisons which have just

been made, compare two entirely different groups of people:

(1) Think of the people in the south of Europe—especially of the Gypsies and the Italians—with their entire color scheme composed of the warmest colors; orange and yellow-orange skins, with a red-orange flush on the cheeks; the hair a rich dark red-orange (brown), and the eyes brown. Their coloring is characteristic of the warm type of person. (See Fig. 178D.)

(2) In comparison, think of the people in the north of Europe—especially in the Scandinavian countries—with their cooler coloring; fair skins, showing the cooler pink which really is a tint of red-purple; yellow or yellow-orange hair (called golden), and blue eyes. (See Fig. 178A.)

The two types illustrate the essential differences between the representative examples in the warm and cool groups.

In order to become accustomed to differentiating these types it is very helpful to classify the people whom one sees. As a general rule the combination of hair and flesh color, including the flush on the cheeks will be the determining factors in placing one in a warm or cool group. The eyes will serve further to place a person in one group or the other, but the hair and skin are the principal considerations. In order that the reader may proceed further with the classification the typical examples in the warm and cool types and in the intermediate group are described:

The Cool Type. (1) The Cool Coloring with Golden Hair. Picture a typical blonde; the general flesh color is commonly called "fair"—a pale yellow-orange with just a tint of blue around the temples, nose, and mouth; the flush on the cheeks suggests red-purple—it is a delicate pink which is slightly tinged with blue, rather than a pink tinged with yellow. (Fig. 178A.)

(2) The Cool Coloring with Blue-Black Hair. This type is frequently seen among the Irish. The cool complexion

FIG. 178.

A. (*Left*) The cool type with "golden hair." The typical blonde, with fair skin, light yellow-orange hair, blue eyes, and the reddish flush, slightly tinged with violet, on the cheeks. The costume shows a monochromatic harmony of different values and intensities of blue.

B. (*Top of page*) The cool type with blue-black hair. This coloring shows a cool fair skin, blue-black hair, blue eyes, and the red on the cheeks tinged with violet. The costume is in a double complementary harmony of violet, red-violet, yellow, and yellow-green. (The yellow appears in the delicate tint of the collar.)

C. (*Center*) The warm type with red-orange hair. The hair is bright, the skin warm and "creamy," and the flush of the cheeks is red-orange. A complementary color harmony of blue-green and red-orange is seen in this costume.

D. (*Bottom of page*) The warm type with dark brown hair. The typical brunette with warm brown hair, brown eyes, warm skin, and a red-orange flush on the cheeks. This costume is in an analogous color harmony of yellow-orange, orange, and red-orange.

E. (*Right*) The intermediate type which suggests neither warmth nor coolness in any striking degree, but has some of the characteristics of both. Her costume shows a triad consisting of yellow-orange, red-violet, and blue-green.

Note that black, white, and gray may be included in the various color harmonies.

is the same as in the first group—the fair skin with the cheeks showing a pink tinged with blue, blue or gray eyes, and blue-black hair. This is just as definitely a characteristic example of the cool type as is the blonde. (Fig. 178B.)

There will be variations of both these examples, where the general color scheme is cool, yet the individual may have special problems to consider, such as sallowness, flushed face, etc. These examples will be discussed under the topic "Complexion Difficulties to Overcome."

The Warm Type. (1) The Warm Type with Red-orange Hair. This person is the warmest example of this group. The hair is bright red-orange, commonly called "red hair"; the eyes are brown; the skin is yellow-orange, or creamy, and the flush on the cheeks is red-orange—pink tinged with yellow rather than blue. A variation of this type, and one more frequently seen, is the person with blue or gray eyes, which have the effect of slightly cooling the color. However, the impression of warmth predominates because the color of the hair is so much more conspicuous than the eyes. (Fig. 178C.)

(2) The Warm Type with Dark Brown Hair. This is the typical brunette: The hair is brown, the eyes are brown, and the skin is a more or less deep yellow-orange with the red-orange showing in the flush on the cheeks. (Fig. 178D.)

There are variations in this group—persons whose general color scheme is warm, but who may be pale, or sallow, or who have too much color. They belong to this group, but have special problems to consider.

The Intermediate Type. The Intermediates are just between these two groups, and have some of the qualities of both types. The skin is neither distinctly warm nor cool—it may be called "fair"; the eyes may be blue, brown, or gray; the hair is brown, suggesting neither warmth nor coolness in any striking degree. (Fig. 178E.)

Colors for the intermediate type. The people in this group who have good complexions, eyes which are not too light,

and value contrast between their hair and skin can wear any color or value, provided that the art principles are carried out in the amounts of color chosen and in the occasions for which they are used.

Having eliminated, as problems, persons with good coloring in the intermediate group, one's color knowledge may now be applied to the cool and warm types, and to the people in all three types who have special problems.

Colors for the cool type. Since cool colors harmonize with cool colors, the best color choices for dresses, suits, coats, and hats for the cool type would be from among the cool colors—the blues, blue-purples, purples, the blue-greens, and greens in the proper values and intensities. (See Figs. 178A and 178B.) Trimmings, hat facings, or small accessories, such as ties, may be chosen from the contrasting colors on the warm side of the spectrum. If bits of red are chosen for these accents, let them be the reds which are tinged with purple rather than orange, so that they will harmonize with the flush on the cheeks; such colors as dark American Beauty and dark Magenta [1] are good, while the color commonly called henna [2] is poor.

The coloring of the blonde is delicate, suggesting pearls and orchids, and it requires careful discrimination to choose just the values which will bring out the fine qualities of the complexion. Generally there is very little value contrast in blondes, and for that reason it should be supplied in the costume. Values which are just like their hair are apt to be uninteresting, and either lighter or darker values are more becoming. When blondes wear light colors a bit of dark color near the face adds interest. This color may be supplied in ties, beads, hat trimmings, etc. If the person has no color to spare, then something very light, preferably a bluish white, should be used near the face when black or dark

[1] (RRP D) (1R 3/6)
[2] (RO D) (7R 3/6)

colors are chosen. Blondes are limited in their choice of intensity because their coloring is so delicate that they cannot appear to advantage against most of the bright colors. If bright colors are desired for sports or evening clothes, the cooler hues would be the most becoming.

The cool people who have blue-black hair have value contrast in their coloring, and so they are able to wear a wider range of values than the blondes. They are also able to wear brighter colors because their own coloring is not so easily destroyed. Their best choice of hues will be the cool colors, and they look best in the purples, red-purples, blue-purples, blues, blue-greens, and greens.

Colors for the warm type. The warm type of person is not so delicate in coloring as the cool type, and suggests poppies and autumn leaves rather than pearls and orchids. These people can stand brighter colors, and since they usually have decided value contrasts in their hair and eyes and flesh tones, they can wear dark and middle values. One who has a very dark skin will not look so well in light colors, because light values force color and make people look darker than usual. If white is chosen, let it be a warm white, as cream color, to harmonize with the warm tones of the complexion. The colors on the warm side of the spectrum will be becoming; yellow, yellow-orange, orange, red-orange, red, and often a dull, dark red-purple. (See Figs. 178C and 178D.) The colors called brown, particularly the dark reddish-brown, and the dark bronze-greens, [1] for the related colors, and bluish-greens for contrasting colors, are among the most successful hues. If grays are used they must be the warm grays, called "warm taupe." The bright reds should be chosen from among the reds and red-oranges, rather than from the red-purples, in order that they may harmonize with the color in the cheeks and emphasize it.

The auburn or "red-haired" person will determine whether

[1] (YG D) (YG 2/1).

the red-orange of the hair should be subdued or forced. The warmer colors are best for the sake of harmony (excepting red-purple, which is seldom pleasing with red-orange). If the red-orange of the hair is to be suppressed, then the dull dark browns will be best because they make a close harmony. If it is desired to emphasize the color of the hair, choose the opposite colors, keyed to yellow or orange, as a soft green, a bluish-green, or the brownish-greens. Avoid clear cold blue, blue-purple, or cold grays, for the contrast is too harsh to be beautiful.

Complexion difficulties to overcome. The problems which are apt to be found in any group may be too much yellow in the skin, pale eyes, pallid cheeks, flushed face, lack of value contrast in the hair, skin, and eyes, and faded hair. In these cases one must emphasize the person's best feature or features, and attempt to suppress any unattractive qualities.

These are some of the problems which may be met, with suggestions for their solution:

To subdue yellow in the skin. For the person with sallow skin:

Avoid all bright colors in large areas.

Avoid unrelieved black near the face.

Avoid tans and grays which are near the value of the skin.

If the person is a warm type with a sallow skin the very dull warm colors should be chosen, such as dull yellow-orange, orange, red-orange, and red. The colors commonly called brown and dark wine color are especially good.

If the person is a cool type with a sallow skin, the very dull cool colors will be best, such as dull blues, blue-greens, and purples.

It is well to wear cream white near the face to relieve a very dark color or black. Although it is desirable for sallow people to wear dull colors for the large areas in their costume, they should attempt to secure interesting

accents in their dress by using small amounts of bright colors for trimmings.

To force the color in the cheeks. This may be done in three ways:

By wearing white or cream-white near the face.

By using the complementary color; in a small touch, as in a tie or on a hat, if the color chosen is bright; or in a large amount if the color is very dull.

By using the same color as the cheeks, or a neighboring color—red, or red-orange for the warm type, and red-purple or purple for the cool type. The color which is chosen should be much duller than the color of the cheeks if it is to be used in a large amount, and if it is a small accent, as a tie, it may be bright.

To subdue the color in the cheeks. This may be done by wearing dark values, as black or any very dark color, except the complementary color.

To force the color of the eyes. For large amounts, as in a dress or suit, use a darker and duller color of the same hue as the eyes.

A very small touch of a brighter color than the eyes, used in a tie, for trimming, for a hat facing, etc., will intensify the color of the eyes.

The complementary color of the eyes will force them; thus, the grayed tones of orange will force blue eyes. While attempting to bring out the color of the eyes, one must be very careful not to choose a hue which will force an unpleasant color into the face. Therefore, a person with very cool coloring may prefer to force the blue in the eyes by using a cool color, such as blue, for the large areas, with just a small note of the complement (orange) near the eyes, while a warm person with blue eyes could use the complement (orange) in a large area.

To force the color of the hair. This may be accomplished in three ways:

By using value contrasts; that is, black or white or any color which is darker or lighter than the hair.

By using a duller color which is about the same hue as the hair, and having it lighter or darker than the hair.

By using the complementary color, preferably lighter or darker than the hair.

In making a final choice, one should be sure to bear in mind that the complexion must not be sacrificed at the expense of the hair.

To subdue the color of the hair. This is desirable only in a few cases, where a person wishes to subdue the red-orange in the hair. This may be done by using the same hue, or a neighboring hue, at about the same value as the hair. However, since this is apt to be trying to the complexion, it is usually better to have the same, or a neighboring color, in a darker value (one of the dark brownish colors for red-orange hair) relieved at the face by whatever value is needed; usually it will be cream white.

Realizing that complementary colors force each other, the person who wishes to subdue the color of the hair will avoid all bright contrasting colors.

To relieve monotony in the hue and value of hair and skin. Value contrasts are needed, especially near the face, in hats, collars, and ties. If a becoming hue is chosen, a small note of intense color against a subdued background may be very successful.

Colors for people with gray hair. As one grows older it is found that the hair and complexion change, and so each person adds certain colors to his list of becoming ones, and eliminates others. As the skin takes on more of the yellow, one eliminates colors which have a tendency to force yellow. As the hair grows gray one may change his color list, for gray hair is cool, and thus a person who always chose warm colors when the hair was warm brown, and the skin warm, will now choose the duller warm colors than before, and can add the dull cool colors to the list of most becoming colors. Purple and lavender are generally accepted as becoming colors for people with gray hair, but these colors must be carefully chosen, because the bright purples force yellow.

Men and women who have black hair which is turning gray should avoid gray clothes of the black and white mixture commonly called "pepper and salt," when these are just the same value as the hair. These colors have a neutralizing effect upon the individual. A person of this coloring will look much better in clothes which are lighter or darker than the general effect of the hair.

Colors generally becoming. It will be found that if a color is dark enough and dull enough nearly everyone can wear it. The following colors are those which are generally becoming:

Dark blue, in the colors called Dark Navy and Midnight Blue (PB LD) (PB 2/3).

Dark grayish blues, as Dark Cadet Blue (B 3/4N D) (B 3/2).

Dark green (G 3/4N D and LD) (G 3/2).

Dark yellow-green, called Dark Bronze Green (YG 7/8N LD) (YG 2/1).

Dull blue-green (BG 3/4N D) (BG 3/2).

Dark orange and red-orange in the colors called Dark Seal Brown, African Brown, and Dark Red Brown (O and RO 3/4N D and LD) (O and RO 3/1 and 2/2).

Dark red, called Dark Maroon, Dark Wine, and Prune (R 3/4N LD) (R 2/3 and 2/2).

Dark purple and red purple, called Plum and Raisin (P and RP ½N LD) (P 2/2 and RP 2/2).

Warm dark grays, called Warm Taupe, which is the color of moleskin.

Black.

Light colors which are generally becoming are: White.

Light blue-green, called Turquoise and Robin's Egg (BG 1/4N HL and BG 1/8N L) (BG 8/3 and BG 7/4).

Light red-orange in the colors called Flesh, Apricot, Salmon, and Shell Pink (RO 1/4N HL) (7R 8/5).

Colors which are difficult to wear. Certain colors stand out as being trying to most complexions, and the colors which are particularly difficult to wear are:

Bright blues, around middle value.

Bright yellow greens (mustard color).

Light dull orange, called tan.

Bright purple.

Bright blue-purple.

Bright red-purple (cerise).

SUMMARY. Of color in dress it may be said in general that the most pleasing color arrangements are those which, on the whole, show harmony with just a note of contrast. The contrast may be supplied by a change of value, of brightness, or by the addition of a contrasting color. The related and contrasting color harmonies which have previously been named and described will offer countless suggestions for good color combinations. The colors chosen for all the larger garments should harmonize with each other and with the coloring of the individual. A dress or suit should be chosen to bring out the best points in the hair and the skin, and small amounts of color may be placed near the face to force the color of the eyes. The most satisfactory general rule for color in dress is: Warm colors should be chosen for the warm type, and cool colors for the cool type. If contrasting colors are chosen for large areas, as for suits and dresses, they should be keyed; for example, if a person with warm coloring wishes to wear a cool color in a large area, the best choice should be a blue which is keyed to warmth—that is, dull blue or blue-green instead of a bright cold blue.

In order to turn all of this theoretical knowledge into immediate, practical working equipment, one should begin at once to try colors on people, watching the changes that seem to take place in the coloring of the person. Make the first experiments with the extremes in color, working:

(1) From the coldest color to the warmest, for example from clear cold blue to red-orange, and then trying on the dividing hues, as green and red-purple and their neighbors.

(2) From white to black, and then to the middle values.

(3) From the brightest to the dullest colors, and then to the middle intensities.

In this way the most striking effects become apparent, and the eye will gradually become able to recognize the more subtle changes which the different colors bring out in the hair, eyes, and complexion of the individual.

After having learned how colors affect each other, and change one's appearance, one will be able to determine the best colors for any person, and to suggest changes, such as color at the face to relieve harshness, or the addition of a color note or value contrast, a darker or lighter collar, or scarf, or tie, which would transform an unbecoming suit, dress, coat, or hat into a becoming one. Very often the addition of just such a small note of color or value contrast makes an altogether successful costume out of one which would otherwise be unbecoming and commonplace.

CHAPTER XVII

DRESS DESIGN (Concluded)

VI. HUMAN PROPORTIONS AND FIGURE CONSTRUCTION

One of the aims in dress design is to make the figure look as nearly as possible like the normal figure. A knowledge of the proportions of the normal figure is a necessary aid to this end, for it gives a standard for judging human proportions. In addition to this knowledge one should gain skill in the use of lines and color in dress, so that width may appear to be added to portions of the figure which are too slender, and height to parts that are too wide for perfect beauty.

The head the unit of measurement. When the proportions of the human figure are being estimated, the unit of measurement always is the length of the head, measured from the top of the skull (not including the hair) to the base of the chin. Fashion designers usually use a figure which is eight heads high, but some costume illustrators use figures which measure as many as eleven heads high. These models have unusual style and elegance, but the woman who is selecting a dress design shown upon one of these figures should consider her own proportions before she makes her choice. The dress will have a very different effect when it is worn by a woman whose head goes six and one-half times into her total height.

Average proportions. In the attempt to find the number of head lengths in the average woman's figure, the authors have made careful measurements of the proportions of 350 women. The average number of head lengths of the first hundred and fifty who were measured was 7.493, while the average for the three hundred and fifty was 7.5009. It is not

likely that there would be any marked variation if the numbers were greatly increased, and so we may say that the average woman's figure measures approximately seven and one-half head lengths.

Since the fashion figure of eight head lengths is not commonly found, the standard figures in this book are drawn seven and one-half heads high from the crown of the head to the soles of the feet. (Fig. 182.) When the figure is drawn in perspective, as it generally is, this measurement comes to the ball of the nearer foot. A figure of these proportions will be graceful enough to enable one to make attractive costume drawings, and it will be useful, because the proportions of a costume planned upon it look as they would on the average person. In addition to the normal figure of seven and one-half head lengths, two figures of different proportions are included here: The fashion figure, which is eight head lengths, and another which is six and three-fourths head lengths. (Figs. 183 and 184.) This six and three-fourths head lengths figure shows the proportions of the girl of high school age.

Methods of determining an individual's proportions. A simple way to secure a lay figure or a dress form for an individual is to pin a large piece of paper on the wall, and to have the person stand against it while some one makes a pencil or a charcoal drawing of the outline of the entire figure. One's proportions may easily be studied from such an outline, and a dress design may be sketched upon this life size drawing. If desired, a smaller sketch may be drawn to scale. In determining all the proportions, the head length should be used as the unit for measuring, and all measurements written down in terms of one head length (1 H. L.), one and three-fourths head lengths (1¾ H. L.), etc. Then, using a ruler, and taking one inch as equal to one head length, it will be a simple matter to translate these proportions into inches, and fractions of an inch, and to show them

in diagram form as illustrated in the table of lengths and widths in Fig. 179.

A second method of securing measurements for the drawing of a lay figure is to have the person who is to be measured stand perfectly still while the person who does the measuring holds a ruler in the hand stretched out as far as the arm will reach. (The reason for always having the arm out-stretched as far as possible is to make sure that there is no variation in the distance of the ruler from the subject, while the measurements are being taken.) The person who is measuring should walk toward or away from the subject until the length of the head (measuring from the chin to the top of the head, but not including the hair), is exactly one inch. All the measurements which are shown on pages 305 and 306 should be taken, and drawn as shown in Fig. 179.

Photographs are very satisfactory to use as foundation figures for dress design. They may be secured for a comparatively small cost, since they do not need retouching. It is convenient to have the head, in the photograph, measure one inch in height. Since the aim in the photograph is to secure a model which will show the natural silhouette of the figure it is necessary to wear garments which follow closely the lines of the figure.

The person who has normal proportions may trace a good lay figure and design costumes upon it, but the one who has any unusual proportions may wish to know a simple method of constructing a figure of her own proportions, so that she can design her clothing upon it. A simple method of building up a lay figure is illustrated in Figs. 180A to H. Here the proportions of the normal figure are used, but it is obvious that they may be altered to suit individual requirements. Before starting to draw a figure one should become familiar with some of the outstanding proportions, in order to have a standard for judging a well proportioned figure. These

proportions are shown by the group of lines with arrow heads at the left of the line on which is marked the table of lengths for the woman's figure, in Fig. 179.

Proportions of the woman's figure. In the normal figure, the line of the hips and wrist divides the body into two equal parts. The armpits divide the upper half of the body into equal parts, while the knees come halfway down the lower half of the body. The eyes come halfway between the chin and the top of the skull.

The "balance line." In drawing the figure the lengths and widths are marked off on a "balance line" (AB, Fig. 179). The balance line coincides with a plumb line which would follow through the center of the front view or the back view figure. In three-quarter view figures the balance line comes through the center of the column of the neck and waist, and to the ball of the foot on which the weight is resting; or it comes between the feet, if the weight is equally distributed.

Proportions for the figure measuring seven and one-half heads. If the total height of the figure measures seven and one-half heads the normal proportions are as follows:

TABLE OF LENGTHS OF THE WOMAN'S FIGURE

Top of skull to chin	1 head
" " " " shoulder line and pit of neck	1 1/3 heads
" " " " "modesty line," the lowest point for neck opening	1 2/3 heads
" " " " armpits (1/2 H. L. below shoulder line)	1 7/8 heads
" " " " bust line	2 heads
" " " " waist and elbows	2 2/3 heads
" " " " hip line and wrists	3 3/4 heads
" " " " end of torso	4 heads
" " " " finger tips	4 1/2 heads
" " " " knees	5 9/16 heads
" " " " widest part of calf of leg	6 heads
" " " " ankles	7 heads

Top of skull to base (soles of feet, or balls of feet if drawn in perspective)	7 1/2 heads
The length of the hand	3/4 head

The lengths of the head are as follows:

Top of skull to eyebrows	3/8 head
" " " " eyes	1/2 head
" " " " base of nose and ears	2/3 head
" " " " top of upper lip	3/4 head
" " " " base of chin	1 head

The average woman's head length is 8 1/2 inches.

Table of Widths of the Woman's Figure

Skull at eyebrows	3/4 head
Neck at the chin	3/8 head
Neck at the base (slightly above the pit of the neck)	1/2 head
Shoulders at the pit of the neck	1 1/2 heads
Bust	1 1/4 heads
Waist	1 head
Hips	1 1/2 heads
Width across knees	3/4 head
" " widest part of calves of legs	13/16 head
" " ankles	7/16 head
" " base of feet, front view	11/16 head
Width of arm at elbow	1/4 head
Width of widest part of arm (forearm, slightly below elbow)	1/3 head
Width of wrist, side view	3/16 head

The eyes are the width of an eye apart, and there is the width of an eye between the eye and the edge of the face. The features are parallel to each other.

How to Draw the Lay Figure

First step. (Fig. 180A.) The first step in drawing the figure is to draw the balance line, and to mark on it all the important lengths and widths of the body, as shown in Fig. 180A. The drawing of this table will be facilitated if the balance line is divided first into the correct number of head lengths. If one makes an accurate table, using clear black lines it will not be

necessary to draw a new table of lengths and widths every time a costume is to be designed. This drawing

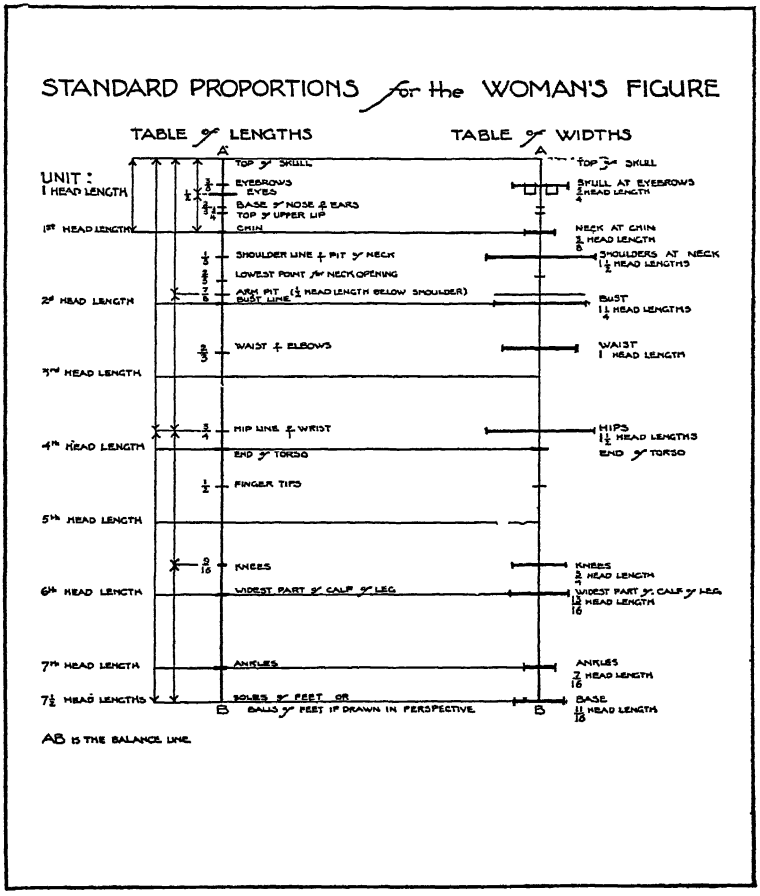


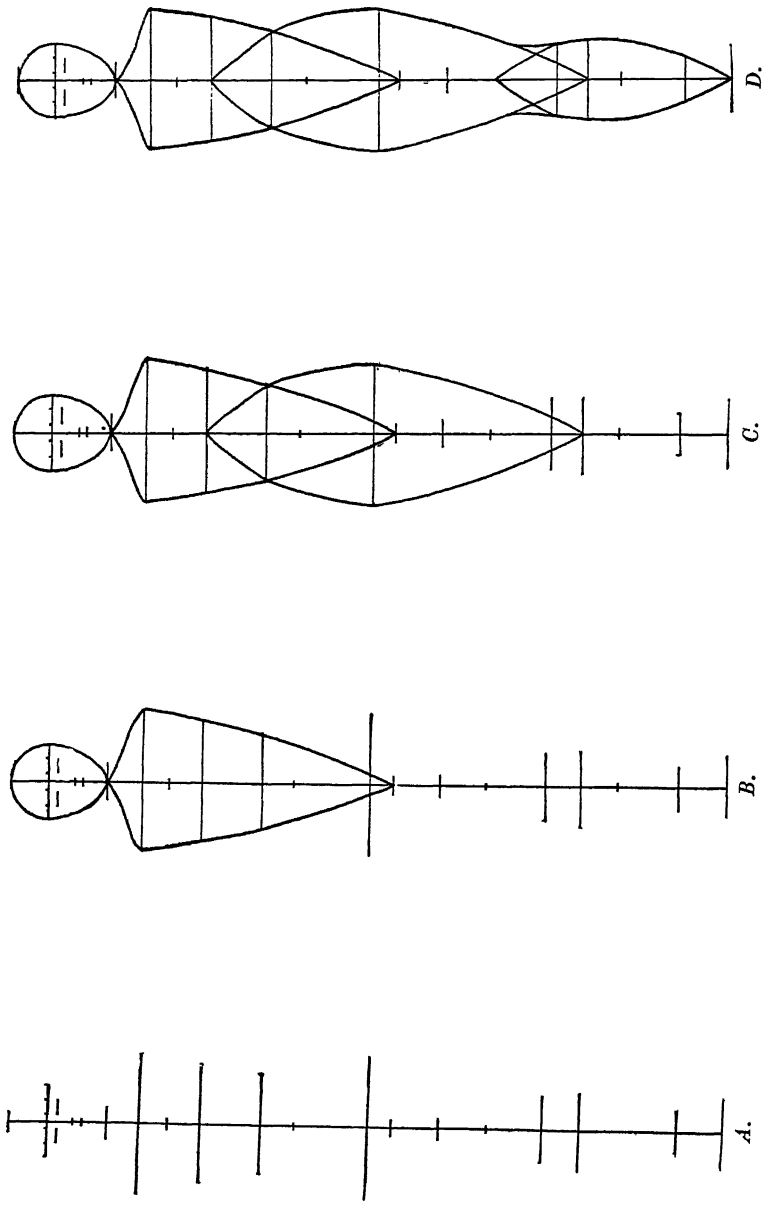
FIG. 179.—A table of standard proportions for a woman's figure.

will show through thin paper and a figure may be drawn over it. A full-size drawing of this table is shown in Fig. 181.

Second step. (Fig. 180B.)

a. Swing in an oval for the head.

b. Draw the shoulders. Carry a curved line from


D.
C.
B.
A.

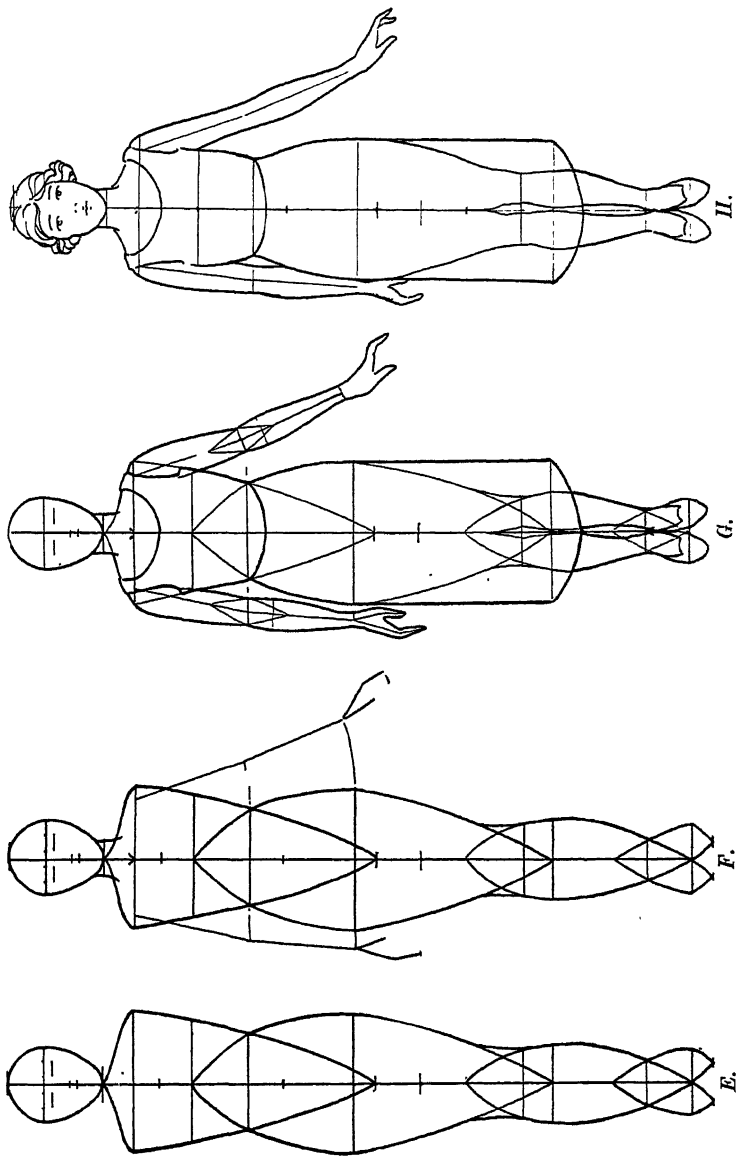


FIG. 180—These eight steps suggest a simple method of drawing a lay-figure.

the chin to the end of the shoulder line, as if it were a continuation of the side of the face. This makes an easy curve for the shoulders.

c. Draw the torso. From the ends of the shoulders, swing a slow curve down to the end of the torso. Have this curved line touch the end of the bust line and the waist line.

Third step. (Fig. 180C.) Draw the upper portion of the legs. Draw curves from the middle of the bust line, touching the ends of the waist and hip widths, and extend these lines to the 6th head length on the balance line, to complete a graceful curve.

Fourth step. (Fig. 180D.) Draw the lower portion of the legs. (Note. This step is omitted if one is drawing a dress form only.) [1] From the point on the balance line which marks the 5th head length, draw curves which touch the ends of the lines showing the broadest part of the calf of the leg, and the ankles. Continue the curve to the base line. To complete the outside outline of the leg, connect the upper and lower portions of the leg with a gentle curve touching the end of the line which represents the width of the knees.

Fifth step. (Fig. 180E.) Draw the feet. (Note. Omit the feet for the dress form.)

a. Draw the outside lines of the feet with a swinging line by connecting the ends of the lines showing the width of the base line and the width of the ankles.

b. The lower part of the foot is drawn with two slightly curved lines meeting at a point to form the toe of the shoe.

Sixth step. (Fig. 180F.)

a. The bone of the upper arm. 1/8 H. L. within the shoulder line, draw a line to the elbow line, to indicate the bone of the upper arm.

b. The bone of the forearm. From the elbow to the wrist, draw a line for the forearm.

c. The construction lines of the hand. From the wrist, draw lines for the thumb and the bent lines to indicate the hand. (Note. Omit for dress form.)

[1] The directions for drawing dress forms are given on pages 312 and 314.

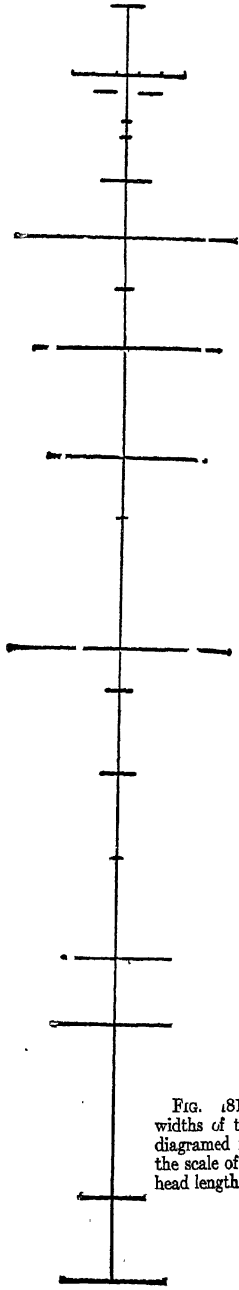


FIG. 181.—The lengths and widths of the woman's figure, as diagramed in FIG. 179, drawn to the scale of one inch equaling one head length.

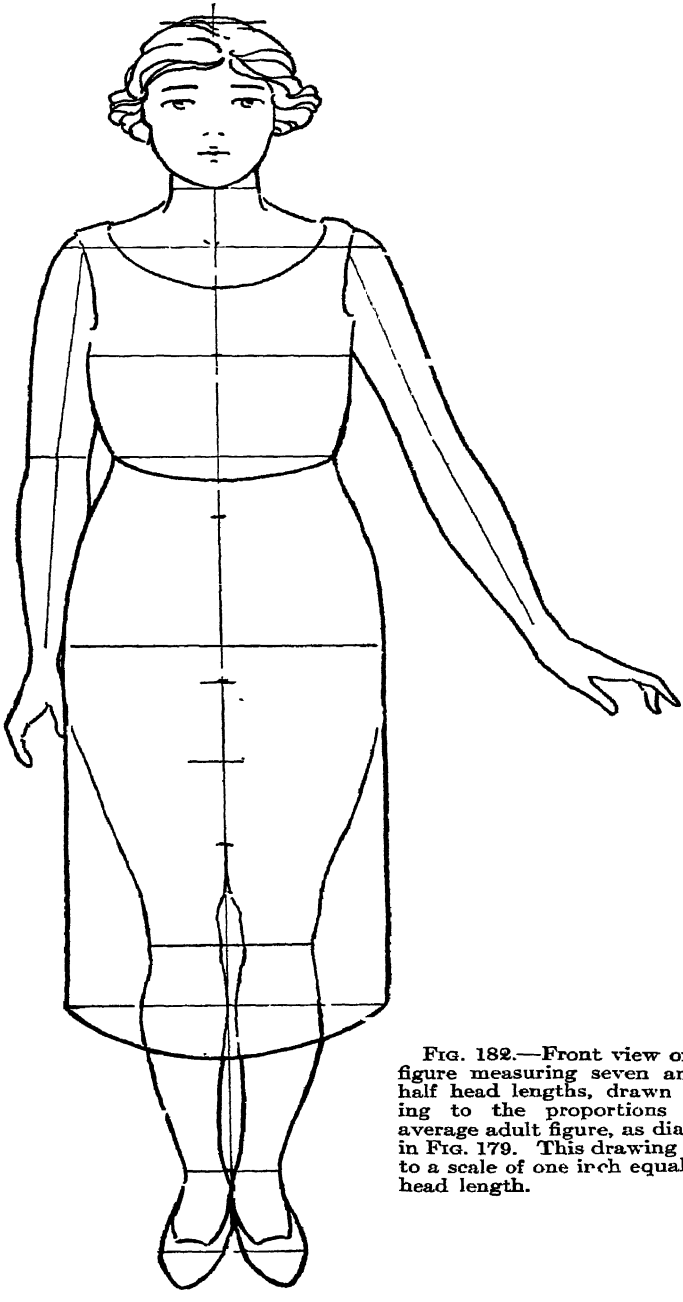


FIG. 182.—Front view of a lay-figure measuring seven and one-half head lengths, drawn according to the proportions of the average adult figure, as diagramed in FIG. 179. This drawing is made to a scale of one inch equaling one head length.

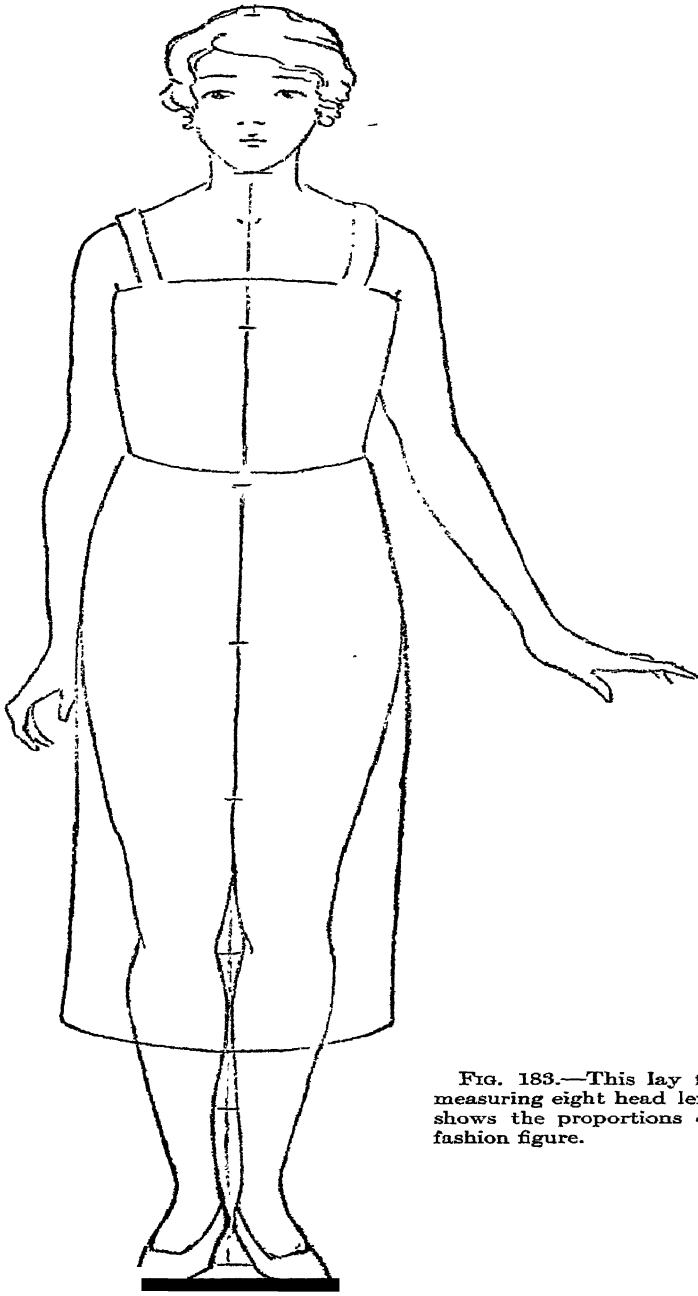


FIG. 183.—This lay figure, measuring eight head lengths, shows the proportions of the fashion figure.

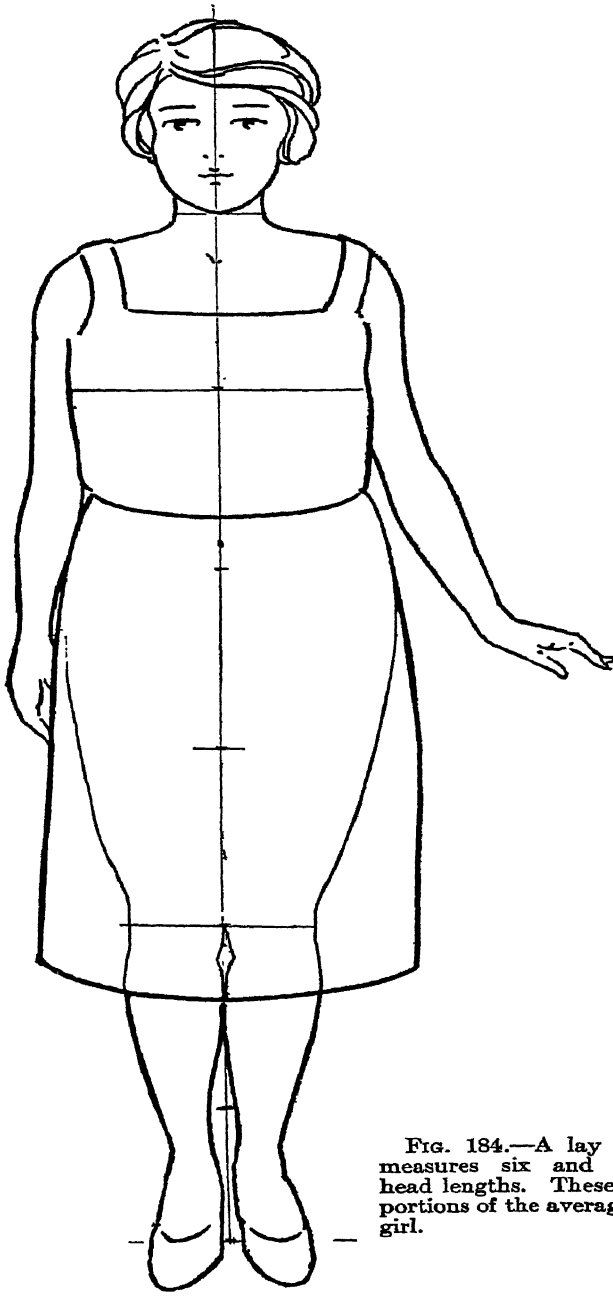


FIG. 184.—A lay figure which measures six and three-fourths head lengths. These are the proportions of the average high school girl.

d. Draw the curves of the neck, widening them slightly toward the base.

e. Indicate the pit of the neck.

Seventh step. (Fig. 180G.)

a. Width of the arm. Mark off widths of 1/4 H. L. at the elbow, and 1/3 H. L. slightly below the elbow for the widest part of the arm. (Note. For the dress form mark off 3/8 H. L. at the elbow, and 1/4 H. L. at the wrist.)

b. Swing in the upper arm with a curve from the end of the shoulder line, touching the elbow width on the outside, and continue the line until it meets the bone. On the inside, start at a point about 1/8 H. L. inside the bust line, and continue the line beyond the elbow width.

c. The curves for the forearm begin somewhat above the elbow, touch the elbow width, and the width of the forearm, going down to the wrist, which, side view, measures about 3/16 H. L.

d. Draw the hands, studying your own hand for general proportions and for form. Keep the hands slender. (Note. Omit for dress form.)

e. Indicate the curves between the knees. (Note. Omit for dress form.)

f. Draw the inside line of the leg with a curve from the widest part of the calf to the ankles. (Omit for dress form.)

g. Draw the lines to show the shoes. Work within the outline of the foot. (Omit for dress form.)

h. Draw the waist line and the bottom of the skirt. These are curved lines, the ellipses of circles seen below the level of the eye.

i. Draw the neck line and armholes of the under garment. (Omit for dress form.)

Eighth step. (Figs. 180H and 182.) Draw the features and hair. (Omit for dress form.)

a. Eyes. Have the upper lid cover one-third of the iris so that the eyes will not look staring. Do not draw the under lid. Leave high lights at corresponding points on both eyes.

b. Nose. Keep the lines indicating the nostrils

nearly horizontal. If they approach vertical lines the nose looks tilted.

c. Mouth. The mouth may be indicated by a line which curves downward slightly toward the center; then use a very short, flat "U" shape for the top of the upper lip, and a much flatter one for the base of the under lip. Indicate high lights on the upper and lower lip by means of a break in the line.

d. Ears. Usually the ears are covered, but if the base of the ear shows it comes on a line with the base of the nose. The top of the ear is on a line with the eyebrows.

e. Hair. The hair should be drawn very simply. An outline is sufficient. The line should be easy and graceful. The hair should not extend much beyond the skull.

(Note. Remember to keep all the features parallel.)

THE FRONT VIEW DRESS FORM. The method of drawing the dress form without head, hands, and feet, is similar to the drawing of the figure, as illustrated in Figs. 180A to G. The differences are quickly seen in the drawing in Fig. 185. It is not necessary to mark off the placing of the features on the balance line when preparing to draw the dress form, but it may help to secure a graceful line for the shoulders if the oval of the head is sketched in. The oval should be erased after the shoulders are drawn. The steps shown in Figs. 180D and E are omitted, for it is not necessary to draw the lower part of the legs. In Fig. 180F, it is not necessary to draw the hands. The lines to show the lengths and the positions of the upper and lower arm are sufficient.

The top of the collar is an ellipse. Its horizontal diameter equals the width of the neck at the chin. This diameter is drawn 1/16 H. L. higher than the point on the balance line which indicates the chin. The sleeves are slightly wider than the arm measurement, and measure 3/8 H. L. at the elbow, and 1/4 H. L. at the wrist. The skirt of a dress form should hang perfectly straight from the hips, and if the balance line continues to the base line or to the floor, the length of the skirt may be estimated upon that. It should be noted that

the length of the skirt should be determined at the outside boundary, and not at the center front. For example, the diameter of the ellipse of the bottom of the skirt in Fig. 185 shows the actual length of the skirt,

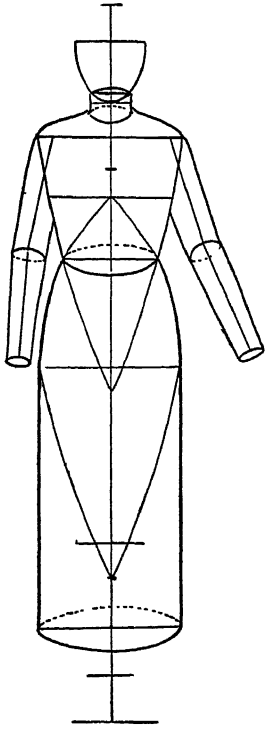


FIG. 185.—Illustrating a simple method of drawing a front view dress form.

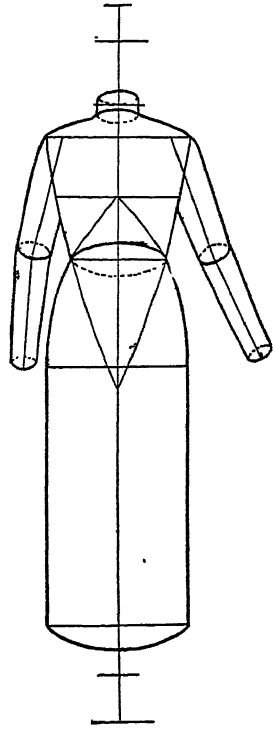
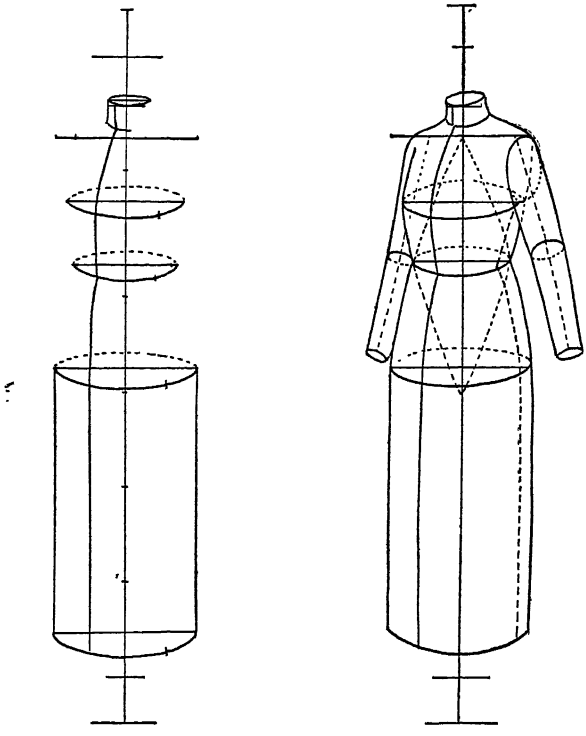


FIG. 186.—A method of drawing a back view dress form.

while the center front, being nearer, looks longer than it is. This skirt is one head length, or about eight and one-half inches, from the floor.

It is convenient, while designing a dress, to leave the center front line, and light lines to indicate the "modesty line," waist line, elbows, and the hips. All other construction lines should be erased before beginning to design the costume.

THE BACK VIEW DRESS FORM. The back view is drawn like the front view, except that the direction of the curves of the collar, the bottom of the sleeves, and the waist line is opposite to that of the front view. The



A. *B.*

FIG. 187.—Two suggested steps for the drawing of a three-quarters view dress form.

curve for the bottom of the skirt is the same as in the front view. Note that the same sized ellipse is used for the front and back view for collar, waist, and sleeves, but that the dotted lines in the front view are visible lines in the back view. (Fig. 186.)

THE THREE-QUARTER VIEW DRESS FORM. The three-quarter view dress form is started as the front

view is started, with the balance line on which the lengths and widths are marked off. Note that the center front of the three-quarter view dress form or lay figure does not fall on the balance line, as it does in the front view. Its location must be determined later. The shoulders will appear narrower in a three-quarter view, but there will be little change in the diameters of the bust, waist, and hips since they are more nearly circular in form.

First step. (Fig. 187A.)

a. After all widths and lengths have been marked off on the balance line, erase 3/16 H. L. from the shoulder line on the side that is to be turned away from the observer.

b. Draw the ellipse for the top of the collar. Since the neck appears somewhat wider in the three-quarters view than in the front view, it is necessary to add 1/16 H. L. to the nearer half of the line which represents the width of the neck at the base of the chin. Using this new line—7/16 H. L.—as a diameter, draw a narrow ellipse for the top of the collar.

c. Draw the ellipses for the bust, waist, and hips, as in the front view figure. The diameter of the waist should not be less than 1 H. L., and it is well to have it slightly more.

d. Determine the length of the skirt.

e. Draw the ellipse for the bottom of the skirt, using the same diameter as the hip width.

Second step. (Fig. 187A.)

a. To find the center front line. Divide each of the ellipses into four equal parts, and indicate these divisions by dots on the outline of the ellipse.

b. Draw a vertical line 1/4 H. L. long for the height of a high, tight collar, placing this line on the dot on the ellipse which is between the balance line and the outside of the ellipse. This should be on the same side as the shorter shoulder line; that is, on the farther side of the figure.

c. Connect the end of this line with the dots on each ellipse which are in corresponding positions. Draw this

line with slight curves rather than with a severely straight line.

Third step. (Fig. 187B.)

a. Draw the farther side of the figure. Mark off 1/8 H. L. from the outside of the shorter side of the shoulder line, and draw the farther side of the dress form by connecting that point with the end of the lines for the bust, waist, hips, and bottom of the skirt. Keep these lines slightly curved until they reach the hip line, and parallel to the center front line.

b. Draw the nearer side of the figure by connecting the end of the shoulder with the end of the bust, waist, hip lines, and the bottom of the skirt. (It will help one to secure graceful curves, and to avoid straight lines if the lines forming the hips are continued to the point where the balance line crosses the shoulder line; and if the lines for the waist are carried down in a curve to the point where the end of the torso is marked on the balance line.)

c. Draw a curve for the bottom of the collar, similar to the curve of the top, but with a wider diameter. The farther side of the collar will be a straight line, parallel to the center front, but the nearer side will be a curved line which continues, to form the shoulder line.

d. Draw a curved line for the shoulder line on the farther side.

Fourth step. (Fig. 187B.)

a. The lines marking the center of the arms are started 3/16 H. L. from the ends of the shoulder line. Since they are swung away from the body the elbows and wrist come slightly higher than the position marked on the balance line.

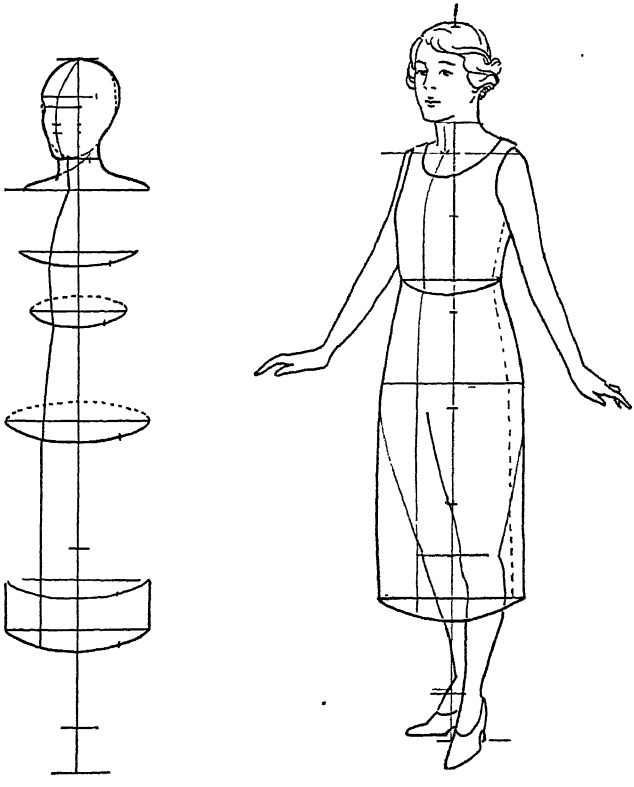
b. The armhole is an ellipse which would be about three-quarters of a circle and its diameter is the distance between the shoulder line and the bust line.

c. Draw the sleeves, with a diameter of 3/8 H. L. at the elbows, and 1/4 H. L. at the wrists.

d. Locate the under arm seam. This may be done by finding the center of the horizontal diameter of the armhole, and then from that point drawing a dotted line parallel to the contour of the figure. This line will be

found useful in estimating the position of the details of the costume such as pleats, panels, etc.

THE THREE-QUARTER VIEW LAY FIGURE. The three-quarter view lay figure is drawn as the dress form



A. *B.*

FIG. 188.—A simple method of drawing a three-quarter view lay figure.

is drawn, with the addition of the head, hands, legs, and feet. The method is, first to swing in the outline of the head, then the trunk, the legs and feet, and the arms and hands. No details are drawn until the entire figure has been sketched in. This method of drawing will produce

an effect of greater unity than one in which the work is finished part by part.

First step. (Fig. 181.) The balance line with its widths and lengths is drawn or traced from the table of lengths and widths, as for the front view.

Second step. (Fig. 188A.) The oval for the head is drawn next.

a. Lightly sketch an oval as for the front view, with the width at the eyebrows equal to 3/4 H. L.

b. Draw a slight depression for the eye on the outline on the farther side of the face. The cheek bone comes just below this eye socket.

c. Build out the chin slightly on the same side, to complete the outline of the farther side of the three-quarter view face. The line of the original oval at the chin should be erased when the new chin line has been drawn.

d. Add 1/16 H. L. to the width of the head at the eyebrow line, on the nearer side, for the additional width of the skull as seen at this view. This amount should slope off in a gradual curve to the top of the head, and downward, until it reaches the line of the original oval, at a point opposite the base of the nose; it should be continued in a gradual curve until it reaches the balance line at the base of the chin.

Third Step. (Fig. 188A.) Draw the neck and shoulders.

a. Add 1/16 H. L. to the nearer half of the line which represents the width of the neck at the chin.

b. Erase 3/16 H. L. from the farther side of the shoulder line.

c. Draw the farther shoulder. Swing a curved line from the nearer outline of the skull to the new shoulder point, 3/16 H. L. inside the shoulder line.

d. Draw the nearer shoulder. This is a curved line which starts from the skull at a point opposite the line of the mouth, carries downward until it touches the end of the line marking the width of the neck, and then swings down and outward to the end of the shoulder line.

e. Draw the farther side of the neck. This is a curve

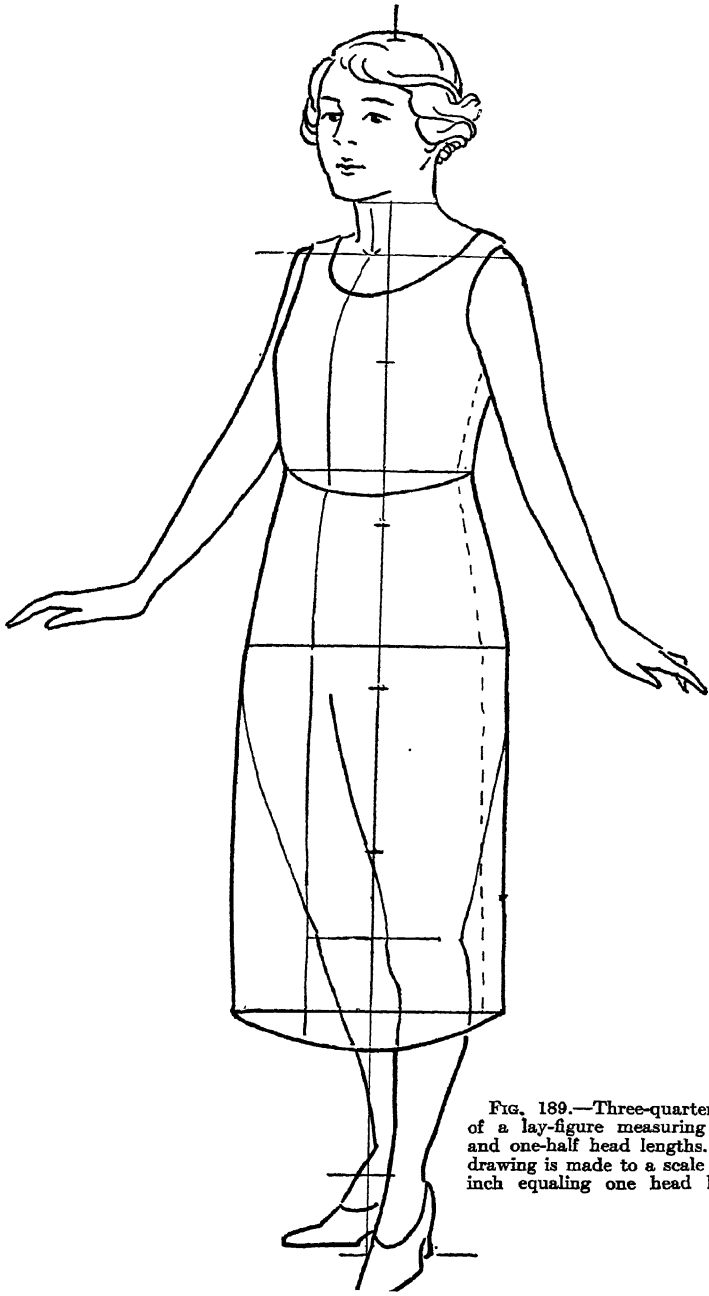


FIG. 189.—Three-quarter view of a lay-figure measuring seven and one-half head lengths. This drawing is made to a scale of one inch equaling one head length.

which is almost a straight line. It begins at the end of the line which shows the width of the neck at the chin, and goes just a little below the new shoulder line.

Fourth Step. (Fig. 188A.) Draw ellipses for the bust, waist, hips, and bottom of the skirt, as described in the drawing of the three-quarter view dress form, in c, d, and e of the first step.

Fifth step. (Fig. 188A.) Draw the center front line as described in the second step of the three-quarter view dress form. In this case, however, there is no ellipse for a collar, and so the center front line of the neck will begin at a point halfway between the balance line and the outside of the neck, on the line which indicates the width of the neck at the chin. It goes down to the pit of the neck on the shoulder line.

Sixth step. (Fig. 188B.) Draw the outlines of the figure according to the directions given in a and b of the third step of the dress form.

Seventh step. (Fig. 188B.) Draw the legs and feet. Note the position of the balance line and the lines which mark the knees and ankles, and draw the three-quarter view legs and feet in the same relative position as shown in Figs. 188B and 189. It will be seen that the outline of the farther knee comes 1/8 H. L. inside the line showing the width of the knee, on the balance line. The outside of the nearer knee is 3/16 H. L. beyond that line. The contour of the legs and feet may be copied from this drawing.

Eighth step. (Fig. 188A.)

a. Divide the eyebrow line of the original oval into four equal parts. Through the point next to the balance line, on the farther side of the face, draw the new center line for the face as it would appear in the three-quarter view. This line is a curve which begins at the balance line on the top of the head, and swings down to the second division on the eyebrow line; from there it continues to swing out in a curve to a point a little above the line of the nose, and then back to the middle of the chin, halfway between the balance line and the outline of the neck.

b. Continue the lines marking the divisions of the

face from the balance line until they cross the new center line. Then erase the balance line with its divisions, so that it will not be confusing. The new center line is not to be erased until the head is finished.

c. Draw the features. The features should be drawn parallel to each other, and centered upon the center line. However, since the face is seen in perspective, the farther half of each feature will appear somewhat narrower than the nearer half. The nearer eyebrow and eye end at the balance line, or a trifle beyond. The inside of the farther eye is hidden by the new center line, which, at that point, marks the bridge of the nose. The nearer nostril appears slightly larger than the farther, and, as in the front view, is nearly a horizontal line, so that the nose will not look tilted. The nearer half of the mouth is somewhat wider than the farther half. The ear is placed slightly inside the outline of the skull. The top of the ear comes on a line with the eyebrows, and the base of the ear is on a line with the base of the nose. The beginning of the line for the jaw comes at this point, two-thirds of the way down the head. The hair begins 1/4 H. L. down from the top of the head, and extends very slightly beyond the face, on the farther side; and it covers most of the ear on the nearer side. The hair should not extend much beyond the skull.

A book on Artistic Anatomy will be valuable as an aid in figure drawing, but there is nothing so helpful as experience in drawing from life. In these life drawings one should not work for details, but rather aim to learn proportions, and to discover the rhythm in the body. One should study to see how one line relates to another, how graceful and unified the figure is; and attempt to put this rhythmic quality into the sketches. As one learns to see the rhythm in the lines of the body, the lay figures will take on beauty and charm, and will add interest to the costumes which are designed upon them.

CHAPTER XVIII

INTERIOR DESIGN

I. PERSONALITY EXPRESSED THROUGH CHOICES

When a person chooses something to put into his house he is doing two things: first, he is gratifying some need or desire, and second, through the qualities which that particular object possesses, he is stating to everyone who can interpret the meaning of such things what sort of person he is. Through his clothes, his house, his pictures, books, furniture, and other accessories a person proclaims himself; his sincerity or insincerity, his egotism or his modesty. The person who makes an effort to understand what different patterns and colors denote makes a deliberate effort to express his best personal qualities through his choices. Walt Whitman, in his "Leaves of Grass," says:

> "There was a child went forth every day,
> And the first object he looked upon and received with wonder,
> pity, love, or dread, that object he became,
> And that object became part of him for the day, or a certain part
> of the day, or for many years, or stretching cycles of years."

It should be recognized that mere things have a tremendous influence in forming character. It would take an unusually strong character to remain true to high ideals of truth and sincerity if dishonesty were the keynote of the home surroundings. Such things as imitation fireplaces, cheap wood painted to imitate a costlier wood, imitation leather,—all these would be avoided if their significance were understood.

Unfortunately, quality in things is more or less intangible,—as difficult to define as personality in an individual, but

the outstanding features can be recognized and classified. With the eyes opened one very quickly reaches the point where every picture, every piece of furniture, or drapery pattern speaks its note of sentiment or sentimentality, social ambition or friendly domesticity, vulgarity or fineness. Louis XIV, Louis XV, and Napoleon told as much about themselves in the furniture and decorations with which they liked to surround themselves as we are able to learn from historical records. Similarly, we know more about people after a short time spent in their home, surrounded by their own things, than we should know in a long time spent with them in a hotel or any other impersonal setting.

If the reader happens to be one who has never realized that the things which people choose tell about their character and their ideals, let him think for a few moments about impressions which he has received at the theater. The curtain rose, let us say, upon a living room; before anyone came on to the stage the audience formed a very definite idea of the kind of people who would be at home in that room; and, if the stage decorator understood his craft, the people would prove to be just about what was expected. If a stage setting shows a living room with glaring lights, bright flowered wall paper, a red and green rug, showy lace curtains, and over-decorated lamps, one expects the people who live there to come on the stage more or less gaudily dressed, perhaps chewing gum and using a great deal of slang. Suppose, however, that the setting shows a room with soft and mellow lights, ivory walls, rugs with subdued and harmonious coloring, plain white curtains with quaint chintz draperies at the windows, simple furniture, with some comfortable chairs in front of a hospitable open fire, plenty of books, some flowers, a few good pictures, and some pieces of pewter and luster which catch the light and create points of interest. The audience would expect the people who live in this room to be quietly dressed, low-voiced, and to have dignity and charm.

It would be interesting if everyone would ask "What would my home express if it were shown on the stage?" One would then stand off in a detached and impersonal way and judge every detail. Has the choice of pictures expressed qualities to be approved or regretted? Have the lamps, vases, candlesticks, baskets, and other decorative objects been chosen for their beautiful shape and color and refinement of decoration, or are they over-ornamented? Are these decorative objects placed where they are needed,—to relieve a bare spot, to create interesting shapes and spots of color, or to balance some other object? Or, on the other hand, are they put up for show purposes, ostentatiously mounted on pedestals, frankly to "show off"? Are they in such numbers that they do not enhance each other or the thing on which they are placed, but add to the confusion of an over-decorated room? Does the furniture express the kind of person that its owner would like to be? Do the rugs and wall papers stay back quietly in a well mannered way, as backgrounds should? If the result is not entirely satisfactory, it would be a good plan to find out just what is the matter.

Masculine, feminine, and impersonal furnishings. Furniture, hangings, pictures, and decorative objects may suggest either a masculine quality, a feminine quality, or they may be impersonal. Usually the same things would not be chosen to furnish a bedroom for a young girl, a man's room, and a guest room. While it is undesirable to have the girl's room look weak, there should be a distinctly feminine quality, resulting from the selection of a little lighter type of furnishing—a slightly smaller, finer pattern in the drapery material, and a little more grace in the lines of the furniture and other objects. The colors in a girl's or woman's room should be somewhat different from a man's room; they should not be lacking in character, as pale blue or light pink, but the colors may well be lighter, and the texture finer. A

man's room need not be dark or heavy to be masculine in quality, but it should have no appearance of "daintiness"; it ought to be more solid than a woman's room, and some-

FIG. 190.—This little room is quaint, unaffected, and domestic. It implies its feminine ownership through the lightness of its furnishings.

where a forceful bit of dark and light or color would be found. A guest room should be impersonal—that is, just between the masculine and feminine—so that either a man or a woman will feel at home in it. A transitional quality should be present, which may be achieved by selecting furnishings neither distinctly light nor heavy, patterns neither

very small nor very large, and colors neither dainty nor heavy.

The illustrations in this book if studied with a view to visualizing the owners, would suggest that the bedrooms in Figs. 190 and 191 belong to women. These rooms appear feminine principally because they are light in scale,—both

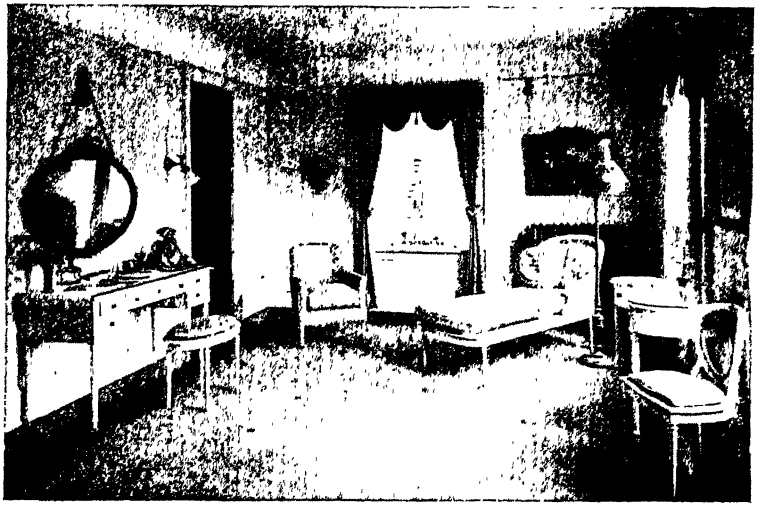


FIG. 191.—(*Courtesy of Wm. Yungbauer*).
A delicate scale of details gives to this room its impression of femininity. The choice of the Louis XVI furniture and the character of the hangings, pictures, and the decorative details convey a social idea.

in the color and in the sizes of the furnishings which are used together. There is a delicacy in all the details of the furniture and the decorative accessories, and the textures are fine. While these two illustrations show a feminine quality, they show very different personalities; one could not imagine that the owner of one would feel perfectly at home in the other's room. Turn to the drapery material in Figs. 214A and B. One would say at once that this pattern seems to belong in a woman's room, for it has the lightness in scale that one

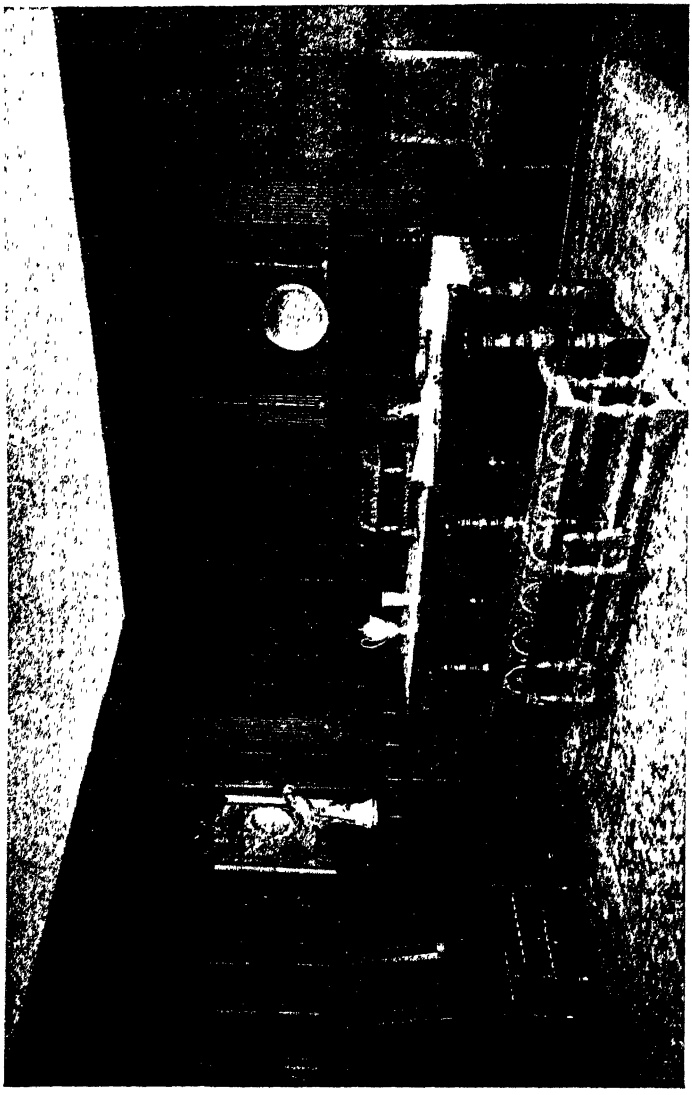


FIG. 192.— (*Courtesy of Wm. A. French & Company.*)
In this masculine version of a domestic room there are qualities which reveal an owner of discriminating taste.

associates with furnishings for a woman. Masculine personalities stamp the rooms in Figs. 192, 193, and 194. These rooms seem to suggest sturdiness as compared with the women's rooms; they have a more severe line, and while the details are as thoughtfully worked out as in the other rooms, they are a little larger in scale all the way through. Sim-

FIG. 193.—The scale of the furniture and the weight of the color in this room leave no doubt that its owner is a man. (The arrangement of the room is marred by the poor placing of the square pillow and the rug.)

ilarly, the cretonnes in Figs. 217A and B, and 218A and B are distinctly masculine in type, for they show more vigor in pattern and color than seems to be consistent for a feminine room. Turning to Fig. 195, we should say that this room expresses neither a strikingly masculine nor a feminine quality. It is the type of room which makes a suitable guest room. The furniture is neither so light in scale as to appear frail to a man, nor so large that a woman would think it

heavy. The drapery material has strong enough character in pattern and color to appear sufficiently forceful to a man, and it is light enough in scale to be pleasing to a woman. It is through striking a middle ground in form, pattern, and color that one produces an effect which is suitable for the room in which either a man or a woman would feel at home.

Domestic and social qualities as expressed in the home. In

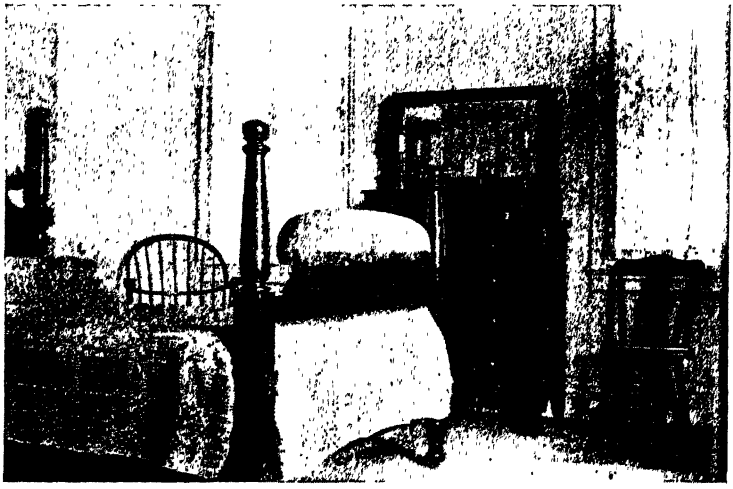


FIG. 194.—There is a masculine quality in this bedroom. It is denoted by substantial furniture and by the simplicity of the furnishings.

addition to expressing a masculine or a feminine quality, objects may give a social or a domestic feeling. Domestic quality is the outward expression of the love of home and family, and is usually informal. The social idea is more formal than the domestic. When the term "social" is used to define one of these group expressions it must be understood that the more limited sense of the word is intended, as referring to the characteristics which result from an interest in the conventions of formal society. This expression will vary with the social standards of the individual. If he is a

person of taste, if he is sincere, and his standards are high, grace and charm and fine quality will be reflected in his choices and arrangements. If, on the other hand, he is insincere or a social climber, that will be apparent in the things he selects, for they will be ostentatious.

It should be understood that questions of expense, of good

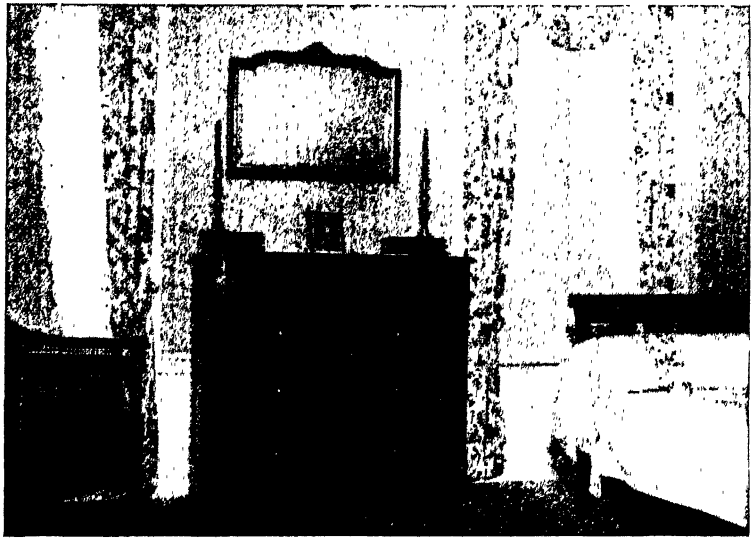


FIG. 195.—This guest room is sufficiently impersonal to be used either by a man or a woman. The impersonal quality has been achieved by avoiding extremes in the scale of pattern and color.

or bad taste, of richer or poorer materials never enter into these attributes of objects—the social or domestic, the masculine or feminine. It is simply the individuality of an object, just as it is individuality which gives distinct character to each of Mr. and Mrs. Black's four children. The oldest child is devoted to the home and to the family; the second is interested in social life; the third has some of the traits of both the older children; and the fourth is a colorless individual with no imagination. Although the actual fur-

Fig. 196.—This house conveys the idea of domesticity. It sits close to the ground, and the planting seems to make it a natural part of the landscape. The lines of the house are particularly suited to its location on a hill top.

nishings of the houses of these four persons would change with their changes of fortune and their acquisition of taste, the essential quality would always be the same. The possessions of each person would reflect his personality because he could not help surrounding himself with things which reflected him.

Let us go back to the Black family, and see what their houses would express under various conditions. It has been

FIG. 197.—Peace and comfort are suggested in this homelike interior. Here there is a consistent use of materials, for all the furnishings are related in texture, and they are in keeping with the atmosphere of the room.

noted that the outstanding characteristic of the oldest son is a keen interest in the home. If, in addition, he has good taste and average means, one would expect him to choose a house very much like Fig. 196. This house is just as homelike and as unaffected in its design as it is possible for a house to be. It nestles down among the trees, and the vines and shrubbery seem to knit the house to the grounds. The small paned windows help to give unity, and they seem to add to the air of friendly hospitality that the house so clearly expresses. The furnishings in Figs, 197, 198, 199, 212, and 232 show the same domestic quality expressed in the interior

as is observed externally in the house just referred to. The furniture is built on simple, unaffected lines; the rooms look as if they were used and enjoyed. There is a genuineness and a friendliness that suggest hospitality and delightful conversation. The most domestic of all the historic period styles are the early English periods; the Tudor type of house shown in Fig. 200 and the Jacobean room in Fig. 192 are

FIG 198.—This livable room has much individuality, and it seems to offer a delightful hospitality. The room is essentially domestic, for it expresses the spirit of home.

FIG. 199 shows the other end of this room.

outstanding examples of this expression. This Tudor house is similar in spirit to the small house in Fig. 196, showing that the characteristic quality of a thing does not depend upon the amount of money expended. The Jacobean room in Fig. 192 shows the dining end of a living and dining room combination. While this picture does not show the big open fire and the comfortable chairs at the other end of the room, the spirit is here. This looks like a man's room, the room of a man of wealth. This home leads one to think that its owner has traveled and is a person of wide experience. The objects

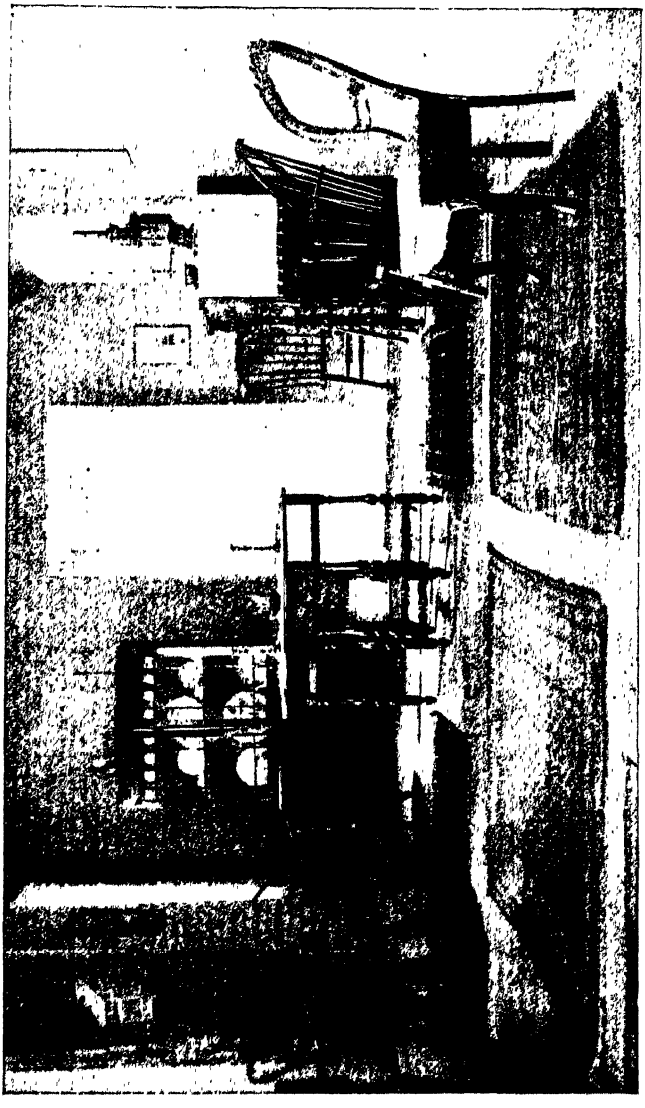


FIG. 199.—There is good design in the arrangement of the furniture and the decorative objects in this room. The choice of the furnishings for the dining end of a living room is especially worthy of notice.

FIG. 200.—The domestic effect produced by this house is achieved largely by the use of *rather rough* textures in the building materials, a softening of all sharp lines, and the planting, which gives a sense of privacy to the house and grounds.

here are of the sort that a man who has had many advantages is likely to select from among the many which he has seen. The combination of these things which are so distinctive in themselves make for interesting personality in a room, and suggest that the person who lives in a room like this is unaffected and enjoys his home.

It will be found that even though a domestic person has no

FIG. 201.—The social expression is illustrated in the formal architecture of this adaptation of the Italian Renaissance. Notice the simple wall surfaces which emphasize the beautiful proportions and exquisite details of the openings.

taste, he will express himself just as decidedly as, although less beautifully than, the person reflected in the rooms that have been illustrated. The rooms of the domestic person who lacks taste may not be beautiful, but they will have a homelike appearance.

A study of Figs. 192, 197, 198, 199, 235, and 117 brings one to the conclusion that while there is a difference in the amounts of money spent in these rooms, there is one idea which the owners have in common, and that is a love of the

home and of home activities which results in the spirit which we may call "domestic."

The conventions of more formal society have influenced the life of the second Black child more than they have the one who has been described as domestic. This person is typical of the "social" group, and the house in Fig. 201 reflects the influence which would express this social per-

FIG. 202.—(*Courtesy of Wm. A. French & Co.*)
The grace and formality of the social atmosphere are shown in the appointments of this breakfast room.

sonality. Comparing it with Figs. 196 and 200 it is seen to be more formal and more conventional than the English type of house. One can not say that one of these expressions is more beautiful than the other. They are so different that no attempt should be made to compare them. Just as the classicism of Greek architecture particularly appeals to some people and the romanticism of the Gothic to others, so the things which are domestic satisfy one group of people, while the social expression pleases others. One's choice

between these is a matter of temperament, and it should be one's desire to show his personality in the most consistent and the most beautiful way possible. Beauty should be the ultimate aim for all of one's possessions.

FIG. 203.—Although the simplest materials have been used in this room, there is a quality here that creates a social atmosphere.

In a house of the formal type which has just been discussed one would expect to see furnishings similar to those shown in Fig. 202. There is beautiful restraint in the furnishing of this room, and with all of its richness it has an air of simplicity. Everything here is formal and social, and one associates ease and luxury and ceremonious entertaining

with its occupants. Fig. 203 is about the way this person's breakfast room might look if there were very little money to be spent, and the social activities were planned on a simpler scale. The same formality is suggested, and it shows the same restraint as the richer breakfast room.

Not all the social expressions are so sincere and so fine as

FIG. 204.—The general effect of this room gives the impression of a social quality, but there is a feeling of ostentation in the furnishings, and the room lacks beauty.

these, and if the Blacks were without social background, and if this second son were both "ambitious" and tasteless, the social quality would express itself in showy things. If he had wealth he would select palace furniture, such as that of the periods of the Italian Renaissance and of Louis XIV, and he would use it in all its grandeur, in spite of the fact that his life was not regulated on the scale and manner of royalty. If he did not have a great deal of money to spend he would secure this display in some less expensive way, as in Fig.

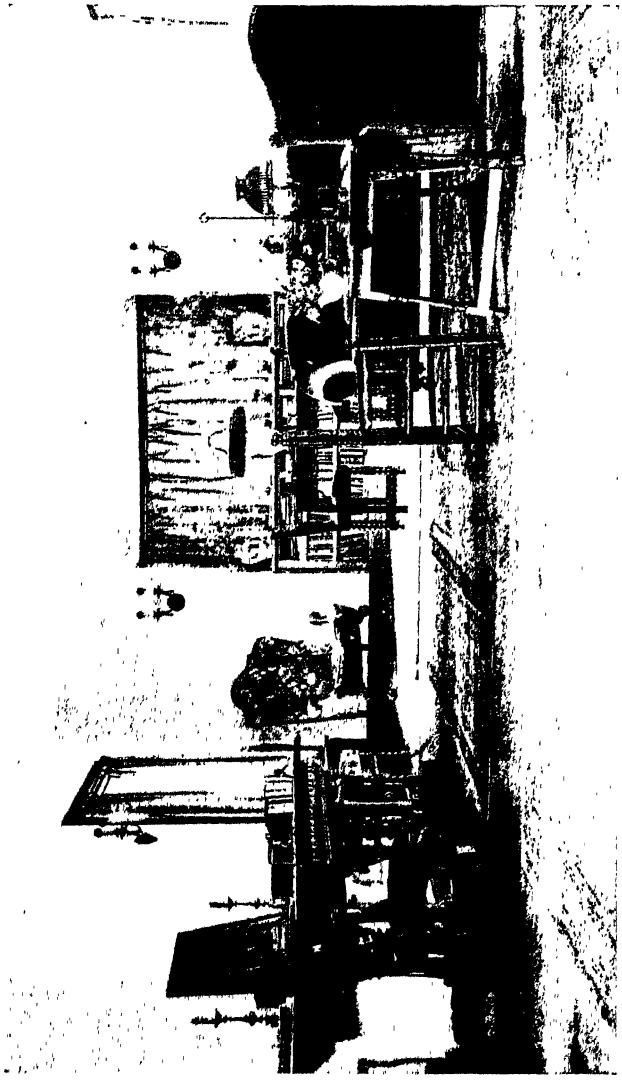


FIG. 205.—An interesting note in this room is the combination of social and domestic qualities. Note the pleasant distribution of plain and patterned surfaces, and the simplicity of the architectural background which makes it possible fully to enjoy the lines of the furniture and the decorative objects in the room. Here several period styles have been combined in making a livable modern room.

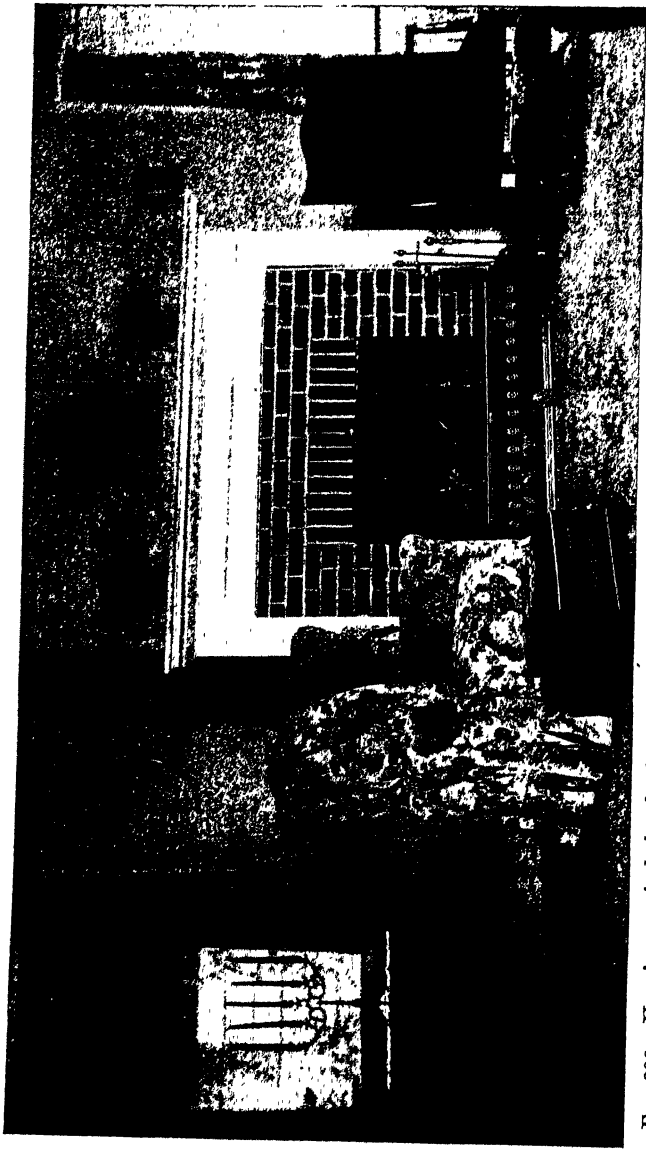


FIG. 206.—Here is a particularly pleasing combination of social and domestic qualities. The general effect of this room is that of repose brought about by the successful distribution of emphasis. The pattern in the curtains, chair, and picture gives enough variety to be interesting, while the walls and floor make restful background spaces.

204. The showy border on the walls, the vase on the pedastal, the boastful lines of the furniture, the array of cut glass on the sideboard,—in fact, all the details in this house, combine to make it of a totally different quality from these others, yet it is just as social.

The personality of the third Black is a combination of the

FIG. 207.—An unimaginative design and the least interesting of materials,—cement blocks, flat asbestos shingles, and cold gray stucco,—have combined to make this house most commonplace and dull.

first two, and so the social and domestic inclinations are balanced. The desire for comfort will be apparent in the home, and there will also be some formality. Fig. 205 might be the home of this person if he had means and good taste, and if there were a smaller expenditure of money it might look something like the room in Fig. 206. In both these houses there is a suggestion of the formality of the social rooms in Figs. 202 and 191, but in addition, there is some-

thing of the intimacy and informality of the domestic rooms in Figs. 198 and 212. Fig. 2 shows what this person would be likely to do if he had bad taste. Here the desire for comfort has led to the choice of large pieces of furniture, but they are exceedingly ugly; and a misdirected social tendency is apparent in the desire to display the impossible pictures, sofa

FIG. 208.—While a bedroom should be simple, it should not be so totally lacking in individuality as the one illustrated here.

cushions, table runner, and statue. It might be a comfort to the person who furnished this room to know that if he does not instinctively know when a thing is beautiful, he can learn to make good selections.

The fourth child of Mr. and Mrs. Black represents the type most unlike the other three. He is the unimaginative member of the family—he has no outstanding personality, and is colorless and uninteresting. His house would be just

"plain house," like Fig. 207. Cement blocks, flat asbestos shingles with no interesting quality in their texture, cold gray stucco,—in fact, the sort of thing which is as lacking in personality as the hotel bedroom in Fig. 208. He would buy a set of furniture for his living room, quite probably a davenport and two big overstuffed chairs. He would have brown

FIG. 209.—This room looks barren and unimaginative. The arrangement of the furniture does not give an opportunity for conversation, and one cannot believe that the family enjoys living here.

floors, rugs, and walls, with brown pictures in brown frames; a mahogany floor lamp with a rose-colored shade; leather furniture when leather is in style, or a set upholstered in mohair when mohair is in the stores. His living room will have something of the quality of Fig. 209. There will be nothing to induce conversation, no charm, no books and magazines,—no impression that people enjoy living there.

It is interesting to see that masculine, feminine, and impersonal qualities, or domestic, social, and unimaginative characteristics are so definitely expressed. A comparison of these rooms has shown how one expresses his personality in the things he chooses, and how, in addition to having per-

sonality, a room shows good or bad taste. One's aim, therefore, should be to acquire good taste, remembering that knowledge based upon a thorough acquaintance with art principles will aid in discriminating between honesty and sham, between simplicity and ostentation. It will also lead to an appreciation of fine quality, so that one may express his individuality in the most beautiful way.

CHAPTER XIX

INTERIOR DESIGN (Continued)

II. THE ROOMS OF A HOMELIKE HOUSE

Thus far the importance of good taste, and of individuality have been emphasized. Another important consideration in good furnishing is the "homelike effect," and in the discussion of the separate rooms of the house one will see how these three considerations should modify the choice of everything that goes into a room. In addition, some of the essentials for good walls, floors, and furnishings will be considered. Some of these have been discussed in the chapters on the principles of design, but for the sake of convenience in use, the material which relates especially to the separate rooms of the house is summarized.

The hall. The character of the hall establishes the keynote to the spirit of the house, for there it is that one receives his first impression of the atmosphere which, he assumes, represents the home. Dignity, simplicity, and hospitality are the qualities which it is hoped to suggest through the hall, and whether the home is simple and informal, or majestic and formal, these characteristics may be expressed through the choice and the arrangement of the hall furnishings. This is readily seen when Figs. 93 and 210 are compared. The rich materials, the formal placement, the ceremonious lines of the furniture of Fig. 93 suggest that this hall might belong in the house illustrated in Fig. 201, and that one of the rooms to which it leads might be the one in Fig. 202. If the hall is in keeping with the character of the house, one would expect that Fig. 210 leads to rooms like Figs. 89 and 90, or 198 and 199. The hall may be just a passageway large enough to hold the fewest pieces of fur-

niture, such as a small table and mirror, as in Fig. 211, or it may be large enough to accommodate a large table, some chairs, and a chest; but in any case it should be useful,

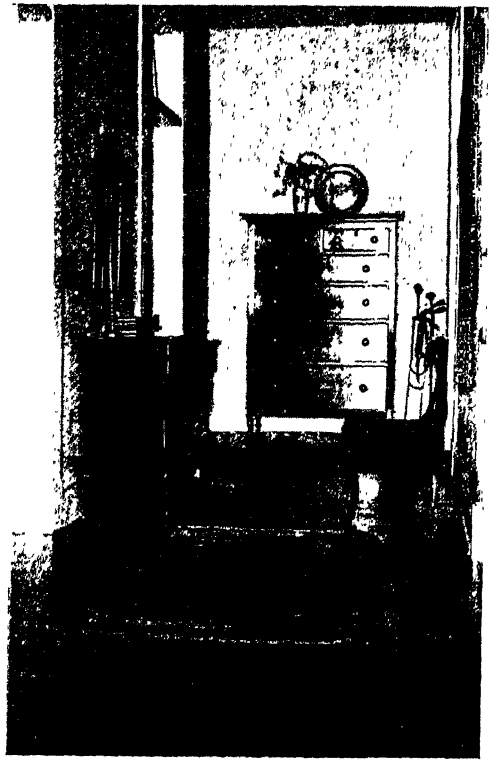


FIG. 210.—The hall should indicate the spirit of the furnishings of the rooms to which it leads. The hall illustrated above does this, as may be seen by turning to FIGS. 89 and 90.

connecting the rooms of the house and providing a storage space for wraps; it should look hospitable, yet not too intimate; simple, but not meagre; and it should suggest that beyond it are rooms which carry out the spirit which it promises.

The living room. A great and lasting pleasure is derived from an attractive homelike living room, and the homemaker or the decorator who has succeeded in putting a

FIG. 211.—This simple arrangement would lend an inviting charm to a small hall.

"livable" quality into a room has done something for the family, and for the friends of the family. "Homelike quality" is an intangible thing, and it is the most vital of all the essentials of a good room. It is something that the owner nearly always needs to supply, since the decorator usually plans and places the larger and more structural objects, and stops short of showing the more intimate characteristics of

the owner's personality in order to give the family the opportunity to express itself. A room has individuality when it is so lived in that it appears to belong to one person or to one family. There are many factors which help to make a room livable, and among them perhaps the first two are comfort and convenience. Many instances will come to mind of families who have moved into fine new houses, and after a few weeks of unaccustomed splendor the mother or

FIG. 212.—Comfort, friendliness, and informality characterize this room. Notice the arrangement above the fireplace; a few objects, well chosen and delightfully balanced, have given a decorative effect to the center of interest in the room.

the father has fitted up a bedroom, or a room in the basement or the attic, with some comfortable chairs, books and magazines, and a well placed reading lamp, and that room is the only place in the house which looks homelike.

There are several ways to secure the effect of livableness which one must know in order to appreciate the homelike quality in one's rooms or to introduce it if it is lacking. First, the room must be simple; if it is crowded with furniture and small objects it will look confused. If the room is not simple enough, everything that is not essential for comfort or

necessary to complete the design should be eliminated; but it must be remembered that a room is a design, and frequently objects which have no practical use are needed to bring color or pattern into a particular space.

FIG. 213.—The convenient grouping of chairs, the small table and lamp near by, impart to the room a suggestion of enjoyable evenings.

Grouping furnishings for convenience. After simplicity comes convenience. A woman who says that her house is always disarranged after visitors leave unconsciously admits poor management in her furniture arrangement. If chairs and sofas are grouped for conversation, if lamps are placed

where they are convenient, and if clear passageways are left between doorways and the various centers of activity in the room, the furniture and lamps will not have to be moved about every time they are used. In the average living room there should be a place for intimate talk, requiring thoughtful grouping of chairs (Figs. 212 and 117); there should be places for the members of the family to read, with comfortable chairs, and convenient, well shaded reading lights. (Figs. 198 and 213); there may be a place for writing, calling for a desk or table, and a good light. It is desirable to place the desk away from the conversation group if this is possible (Fig. 117). There may be a music group; that, too, should be separated from the conversation center and from the desk. (See Figs. 89 and 90.)

Order in furniture arrangement. Having planned the various groups for a room, the next step is to arrange them in an orderly design. The large pieces of furniture should be placed to follow the lines of the room, and to balance each other against the four walls. The shape of each piece should be in harmony with the wall space against which it is placed, so that it will form a pleasing pattern against the background. After the larger pieces in these convenient groups have been placed so that the room appears balanced, the smaller objects may be arranged to relieve bare places. A picture or an interesting fabric, a small table or a bowl of flowers may add a delightful accent to a space which seems too empty. If there are many large bare places in the room they are likely to have a chilling influence, and if there is very much bisymmetric balance it may look too formal.

The importance of accessories. After the room has been furnished to this point the time has come to think about the intimacy and the individuality which may be gained through the smaller things, such as the books, pictures, and other small useful or decorative objects. It is through well chosen

accessories that the greatest amount of charm and intimacy comes into the home, although, to be sure, much individuality is expressed in the selection and the grouping of the furniture. If the furniture is too pretentious for the family or for the social position, or if it is inhospitably placed, neither friends nor owners can feel perfectly at home.

FIG. 214.—Books are very much like people, and will bring a spirit of companionship into the home when they are placed so that they are easily accessible. Books may also lend a decorative note if they are so arranged that their colors form an interesting pattern.

Arrangement of books. So simple a thing as the arrangement of books will add to or detract from the beauty of a room. (See Fig. 214.) The very plainest books can make a beautiful effect in a room if they are grouped according to size and color. To do this so that the result may be practical as well as beautiful, divide the books according to their subject-matter, and then within these groups arrange the

colors and the light and dark books so that they will present the appearance of well balanced groups rather than a light book here and there, an occasional dark one, and bright ones scattered all about. Keeping the lighter books near the top and around the center line, for well placed emphasis will help to complete an interesting color pattern.

Books and magazines which are easily accessible will do more than anything else to make the living room seem homelike. Books are always more inviting if they are placed on open shelves instead of being shut off behind glass doors. They should be placed so that they are convenient for use, and if there are interesting books and magazines on small tables in the room, in addition to the generous shelves, it will add immeasurably to the enjoyment of the room. Pictures in the room will also help to give a delightful atmosphere. The selection and the arrangement of pictures and other decorative objects are discussed at length in a later chapter. In order to secure a satisfying living room the objects which are used for decorative purposes should be beautiful, and they should be suited to the owners, to the room, and to the space in which they are placed. The large part which the details play in making a room look homelike is seen in Figs. 198, 212, 225, 117, 89, and 90; good pictures; flowers, or pussywillows and winter berries when fresh flowers are not easily obtained; something to read; a work box near by with a bit of sewing; footstools; and a few simple, well designed lamps conveniently placed, will help to make the room not only comfortable but delightful.

Color for walls. The appearance of a room can be radically changed if the color of the walls is changed. Small dark rooms with dark colored walls may be made to seem larger and lighter if the walls are changed to a light color, and light rooms will appear smaller and darker when the walls are darkened. Warm colors will bring cheer and the effect of sunshine into north rooms which receive no sun, and cool

colors will temper the glare of too much sunshine. Obviously, then, the size of the room, the number of windows, and the direction of the light will very largely influence the choice of the colors for the walls.

Because dull warm colors make a background against which any color is seen to advantage, most living rooms will look well with backgrounds which are sand color or some variation of sand color. The color may be lighter or darker, depending upon the size of the room, the number of the windows, and the design and number of pieces of furniture. The soft, grayish tan may verge toward green, or toward yellow-orange, or red-orange, depending upon the exposure. If the outstanding color of the furnishings,—particularly the rugs and upholstery materials—is distinctly warm or definitely cool, the walls should contain some note of that warmth or coolness in order to secure harmony in the entire room. White walls may be made to take on warmth or coolness by the use of color in window shades and draperies through which the light will enter the room. The white walls in the room shown in Fig. 1 are beautifully toned by the light which passes through the "creamy yellow" shades, and all the colors in the room seem to be keyed or harmonized by this sunny color. The color of the walls may be quite different in rooms which are separated, but those which are connected should either have wall colors alike or so slightly changed that there is merely an interesting variation rather than a decided contrast.

When the furniture is beautiful in line and in its arrangement, light walls will emphasize these points; but if the room must be rather full, and the pieces are large or not ideal in line or proportion, it is well to have the walls of about the same value as the furniture, so that the latter will not stand out prominently. A comparison of Figs. 192 and 227 will show that when the values of the furnishings and the background are similar one does not particularly notice the out-

line of each piece, but that when there is contrast of dark against light every line stands out.

Although the designer has much latitude in his selection of hues and light and dark values for the living room, he is limited in his choice of intensities. Good taste demands that background colors be dull—that is, low in intensity—, and therefore all wall surfaces should be dull in effect in order that the people and the furnishings in the room may be seen to good advantage.

Pattern for walls. "Shall we have plain or figured walls?" There are many things to consider before this question can be satisfactorily answered. First it must be decided whether one wishes to use pictures and decorative objects and fabrics to supply the pattern for the walls, or to have the decoration of the walls supplied by the paper. A room becomes bewildering if too much pattern is used, and, since living room walls must form backgrounds for people as well as for furnishings, the walls should be unobtrusive, and they should appear flat. If pictures are to be used the walls should be plain, or quite subdued, in order that the details of the pictures may be seen. If a picture is to be used on walls which show a distinct pattern, it must be very large, and its frame or mount needs to be wide enough to set it apart from the decorative background. This requires greater space than can usually be found in the average home, and so large a picture would probably be out of scale with the room. If it is decided that there are to be no pictures, and no pattern in drapery materials, the walls may supply the decoration. Even in these circumstances the design should not be so striking that it will disturb the restfulness of the room. There is a type of design for wall papers which, in its emphasis, comes midway between the plain surfaces and the paper with definite figures. This type is more useful for backgrounds than outstanding designs, and may be chosen by people who enjoy a slight vibration of color, and a sug-

gestion of pattern on the walls, yet at the same time wish to use other patterns and pictures in the room. (See the background in Fig. 3.) The pattern of a figured wall paper which will be generally useful as a background should be in scale

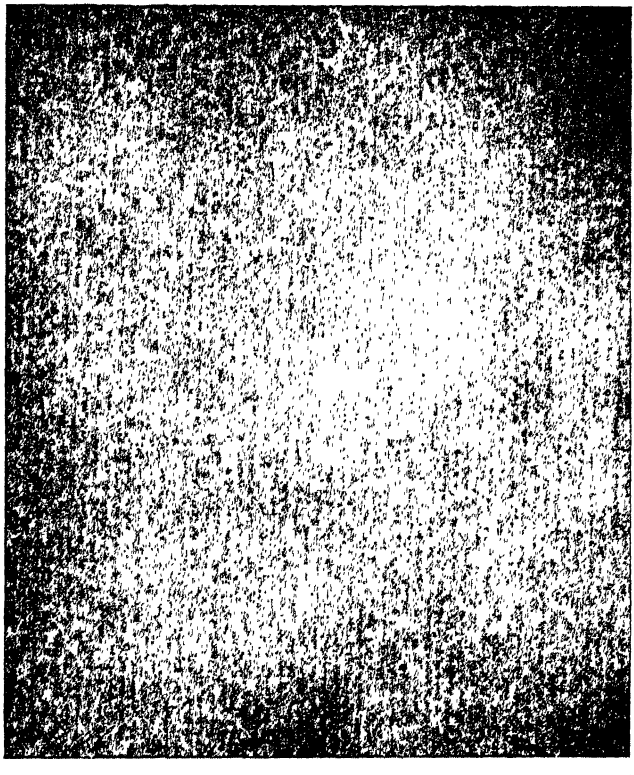


FIG. 215.—A pattern for wall paper should, first of all, be unobstrusive. It should appear to lie flat against the wall, and the design should be conventionalized.

with the size of the room and its furnishings; it should appear to lie flat against the wall, and show no perspective; the colors and the lights and darks should show very little contrast; the design should be conventionalized, and so planned that it will enable the eye to remain at rest at any spot, and

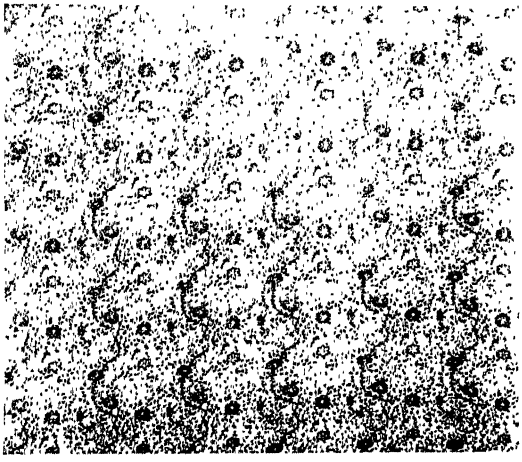
not carry it swiftly across diagonal lines or up and down the walls. (See Fig. 215.)

Ceilings. Ceilings should be light so that there will be an impression of spaciousness. They should not be white, except in white rooms, but keyed to the wall color in order to harmonize with it. In other words, the ceiling should show a slight suggestion of the dominant color of the walls. Since borders carry the eye toward the ceiling and away from the centers of interest in the room, they should be avoided, and a simple picture molding used as a finish for the ceiling and the side walls. The picture molding should be placed against the ceiling, unless the room is too high to appear in good proportion. In that case one may give the appearance of reducing the height of the room by using a "dropped ceiling," placing the molding on a line with the top of the windows, as in Fig. 198.

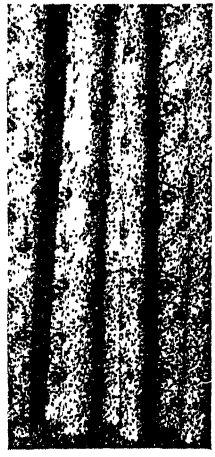
Woodwork. The woodwork is a part of the background of the room, and it should not be too apparent in line or color. Wood which shows conspicuous graining is nearly always undesirable, in furniture as well as in standing woodwork. If the wood trim has beautiful proportions, and the doors and window openings are so placed that a pleasing pattern is made against the walls, the trim may be made to contrast with the walls; but usually it is better to call very little attention to woodwork, and to keep the color and the value of the wood a part of the background.

Floors and rugs. Floors should be dark enough to form a good base for the room. If the walls are light, the floors may be relatively light, but if the walls are dark the floors should be dark. The rugs, too, should be dark enough to appear to give the room a solid foundation. If the general color scheme of the room and the furnishings is in warm color, the rug should suggest warmth, and it should echo the coolness of a cool color scheme. Plain rugs always make perfect backgrounds, but if a surface pattern is desired the design should

be conventionalized;—the surface should be evenly covered, and there should be no outstanding spots or medallions; and the colors and lights and darks should show very little contrast. (See Fig. 159.) A plain carpet, with not even the lines of a border to break up the floor space, will give to a room the maximum appearance of size. A plain rug which



A.



B.

FIG. 216.—Patterns, as well as rooms, have personality. The pattern of this drapery material is feminine in type.

leaves but a narrow border of wood comes next in this effect of increased space, and small rugs make a room look smaller. Too many small rugs have a tendency to make a floor appear spotty, while the furnishings of the room will be unified through the use of one unobtrusive rug.

Color and design in window draperies. If the walls of a room are definitely figured one should select plain draperies. Plain materials should also be chosen for rooms with walls which are plain or have a comparatively inconspicuous pattern, if there are many pictures and much pattern in the furniture and rugs in the room. Plain curtains which are

the same color as the walls will seem to become a part of the walls, and will enlarge the background. This kind of curtain is particularly successful in small rooms with many windows, because the greatest possible impression of size is gained.

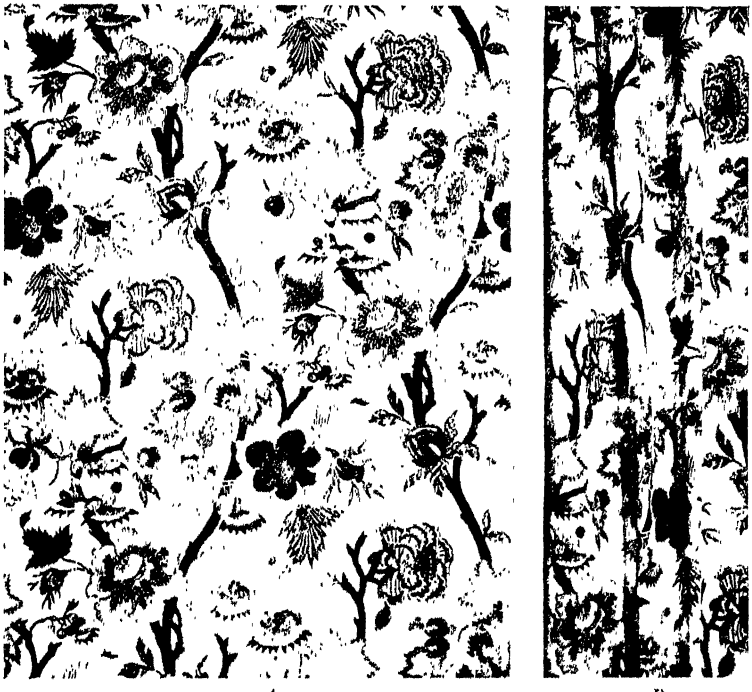
In choosing draperies with pattern one should take into

A. *B.*

FIG. 217.—A drapery material which would be appropriate for a man's room. The scale of this design demands a room of larger than average size.

consideration the size of the room, the general color of the furnishings, and the personality that is expressed in the room. Designs for drapery material should be judged by the same standards that would be applied to any surface pattern. The fabric should not appear spotted, but should be well covered by the pattern. When drapery material is being selected it should be arranged in folds as it will appear at

the windows, for frequently designs which look spotted or show too much movement when the fabric is flat, "hold together" when they are hung in folds. (See Figs. 217, 218, 219, and 221.) In addition to trying the drapery material in



A. *B.*

FIG. 218.—The vigor of this pattern gives one the impression that the fabric might be used in a man's bedroom.

folds, it is advisable to hold it against a window to see how it will look when the light shines through it. Light coming through some fabrics makes the color clearer and more luminous, while in other materials the color can not be seen because of the weight or the weave of the cloth. Curtains which lose their beauty when seen against the light should

be lined so that the light inside the room will make it possible to enjoy the design.

The scale of the pattern should be adapted to the size of the room and to the size of the windows. Patterns like

A. *B.*

FIG. 219.—This type of design should be used only when the fabric is to hang in folds. Otherwise, the effect is too spotty to be agreeable.

Figs. 216 and 221 are suitable for a small room with light pieces of furniture, while Fig. 217 requires a large room. If there are many windows in the room the pattern should be less striking than if there are one or two.

The type of design that one should select depends upon the general character of the room. If the room is large and

very formal, a pattern similar to Fig. 220 would be suitable. For an informal room in which the furnishings are simple and domestic the design might have the general character of Fig. 221. Figs. 222 and 223 show patterns which are quite

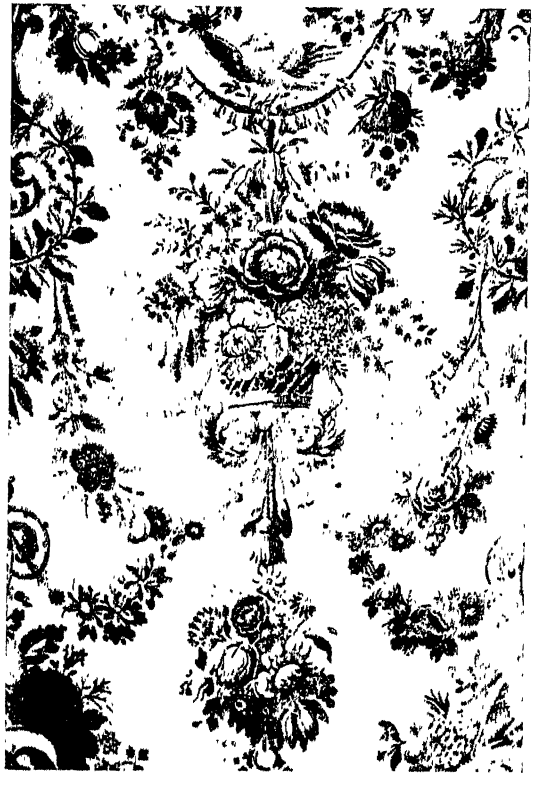
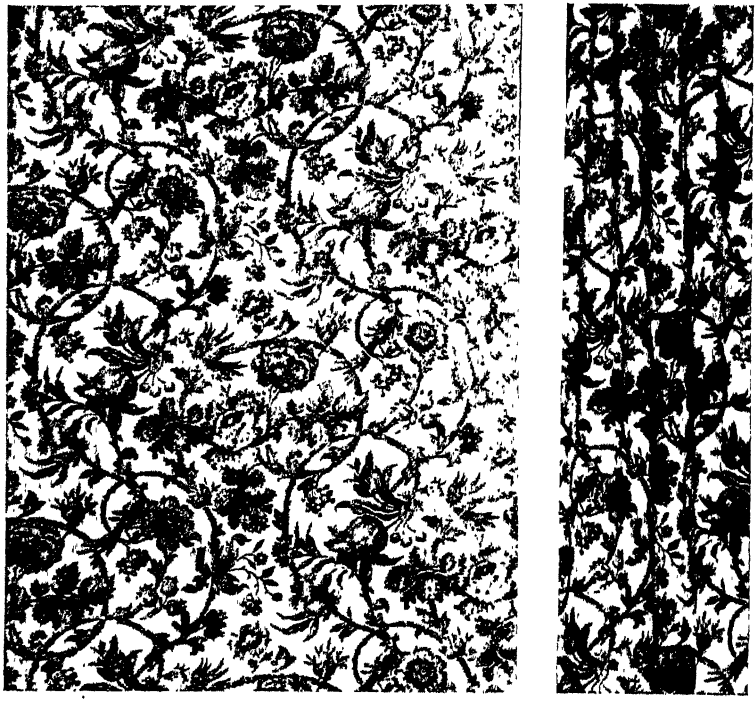


FIG. 220.—The pattern of this drapery is essentially social, and it would require a large formal setting.

impersonal. Fig. 222 suggests a guest room, and Fig. 223 calls to mind an informal breakfast room.

Designs for drapery material should be conventionalized in form or color, or in both, and a faithful imitation of flowers and birds as in Fig. 224 is in poor taste. Well selected

window draperies furnish one of the best means for the introduction of pattern and color into a room, and a room which might otherwise seem too plain may appear well



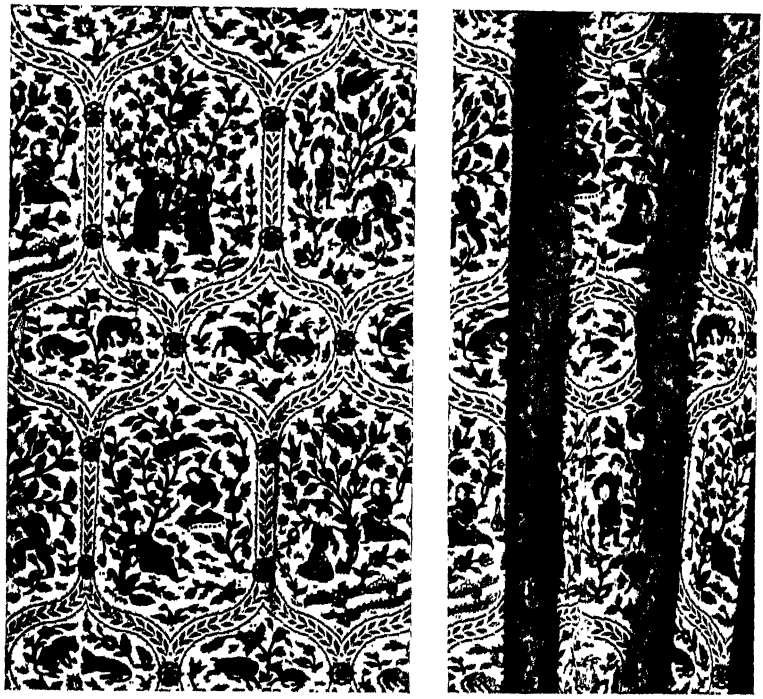
A. *B.*

FIG. 221.—A well balanced and distributed drapery pattern which is domestic in spirit.

furnished by the addition of interesting draperies. (See Fig. 230.)

The hanging of draperies. It is better design to let the draperies hang straight than to loop them back tightly, and they should extend to a structural line in the room. (See Fig. 18.) An especially good line is created when the curtains hang to the bottom of the apron, as in Fig. 229, al-

though it is as consistent to have them come to the sill, as in Fig. 198. When an impression of height is desired the curtains may hang just to escape the floor, as in Fig. 195, but



A. *B.*

FIG. 222.—There is an impersonal character to the design of this textile which makes it suitable for a man's room, a woman's room, or a guest room.

they should not lie upon the floor because they will catch the dust. Curtains may be hung inside the wood trim or outside, depending upon the effect that is desired. They should be hung to cover the trim if it is advisable to secure the maximum amount of light; if the woodwork is unattractive; or if the proportions of the window would be improved by the effect of the additional width. Under ordinary condi-

tions the curtains should be hung inside the trim, for if the windows are of good design it is agreeable to see the architectural framework. When curtains are hung inside the

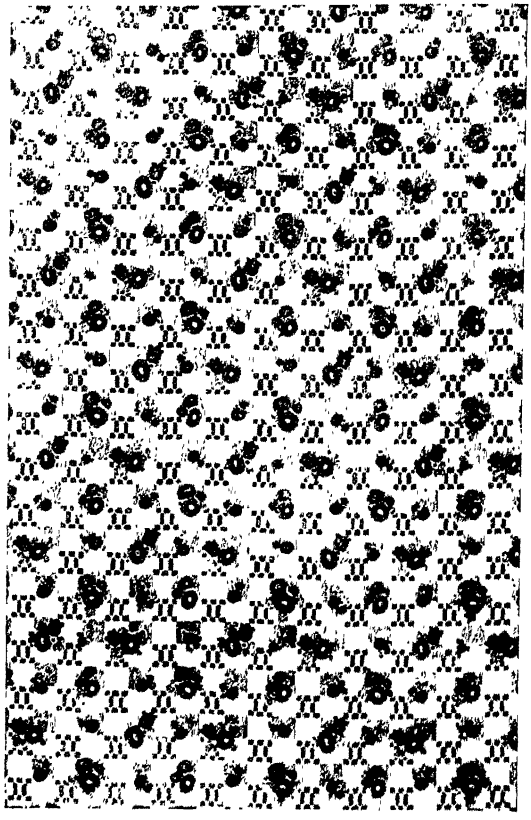


FIG. 223.—The gay modern note expressed here is distinctly impersonal, and suggests a breakfast room or a tea-room.

trim it is well to have them stop at the sill, so that a frame may be seen all the way around the windows. When they are hung to cover the trim, a better design is made when the curtain comes to the bottom of the apron. Whether draperies

are made with or without a valance depends upon the shape of the windows. Valances tend to make the window appear shorter and wider, and they will unify a group of windows. (Fig. 229.) If it is desired to make windows appear longer the curtains should be long, and the valance should be omitted. In most homes the simple gathered or

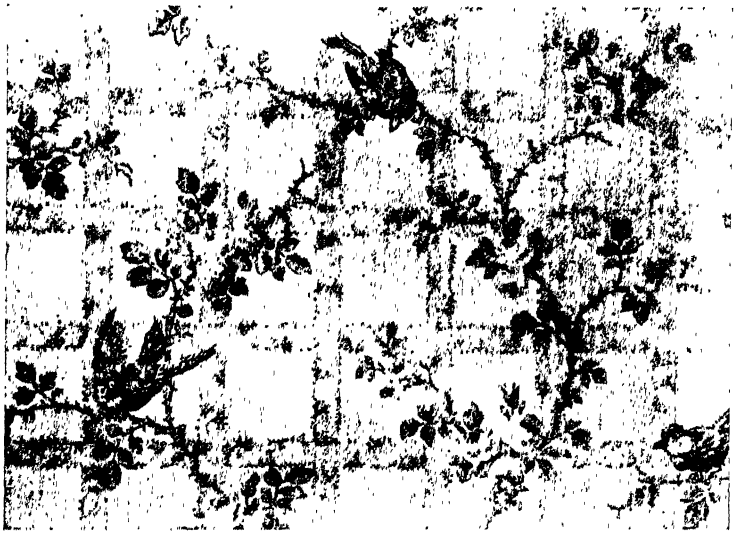


FIG. 224.—This design is entirely lacking in character. It is naturalistic rather than creative, and typifies the kind of design which should be avoided.

pleated valance is the best type. (Figs. 229 and 198.) Shaped valances are suited to formal rooms, but when they are used in modest homes they appear pretentious.

Glass curtains. Thin curtains, spoken of as glass curtains, are necessary in some rooms to secure privacy and to soften the light. If they are used they should be similar throughout the house, and those of each floor should be alike. The glass curtains should harmonize with the general color value of the room. White curtains are delightful in rooms with light walls and woodwork, but they produce a harsh note in a

dark room. Ecru nets, or the natural linen color of theatrical gauze make agreeable glass curtains for dark rooms. The most beautiful materials for glass curtains are plain; if figured material is used it should have such simple patterns as small dots or squares.

Some of the best known of the appropriate fabrics for glass curtains for the average home are voile, marquisette, net, and scrim. The materials which are most frequently used either for overdraperies or single curtains are cretonne, chintz, casement cloth, and pongee. In addition to this conventional list there are the following interesting possibilities in attractive, inexpensive materials: ratiné, cotton crêpe, unbleached muslin, and cheesecloth, dyed or in natural color; linen and cotton crash, gingham, and colored chambray.

While figured over-curtains may supply good color or pattern they are not indispensable, for pictures, books, and decorative objects will serve the same purpose. If windows are numerous it may be desirable to use plain casement cloth or pongee at the windows instead of striking pattern, and let the view and the objects in the room furnish the emphasis.

Lighting. Much of the charm of a room depends upon successful lighting. The simplest room may take on an air of friendliness by the use of well placed and beautifully shaded lights, while the most thoughtfully furnished room may appear harsh and uninviting if the light is too glaring.

There are two types of illumination, general and local. General illumination, secured through the use of a central fixture, is useful when general activities are carried on. However, the central light is uninteresting because it does not bring about the softening effect to be gained by shadows in the room. Concentrated illumination is secured through the use of local lights at those places in a room where such close work as reading, writing, or sewing is to be done.

Lamps should be well distributed so that there may be a fairly even light throughout the room. The advantage of this type of lighting is that it affords an opportunity for soft coloring, and, by throwing parts of the room into shadow, gives an air of intimacy and hospitality that can not be secured with the uncompromising evenness of a central light.

Lamps. If it is remembered that the design of a lamp should suggest its purpose, all eccentric shapes will be avoided. The lamp base should be beautiful in structure, and well balanced. Some well designed lamps are seen in the rooms in Figs. 1, 89, 90, and 198. The shade should be in good proportion to the base, and so shaped that it throws the light as far out as may be desired. The use of a white lining will add appreciably to the amount of light which is reflected. In selecting colors for the lamp shades three things must be considered: first, the color effect in the room in daylight, for it should fit into the general color scheme; second, the color effect in the room at night. The lamp light should have a warm, cheerful quality which will put a soft glow over the entire room. Hard, bright colors, such as red and bright rose, are not pleasing on lamps, and they stand out too conspicuously in the room. Soft grayed tones of yellow-orange, orange, red-orange, and occasionally a dulled old rose, are agreeable colors. Beautiful effects can be obtained by putting two or more layers of semi-transparent material of different colors over each other, the outer layer to harmonize with the room in daylight, and the inner colors to give the beautiful night effects. The third consideration is the effect of the color at night upon the people in the room. Strong blues, purples, and greens make people look like ghosts. If these hues are desired they should be used for a thin outer covering, such as georgette, silk voile, etc., with a lining of yellow-orange, red-orange, or rose color, so that the light will be becoming. In short, the colors selected for lamp shades should be subtle, becoming, and in harmony with the

room. The best colors are those which, in themselves, suggest the color of light. If several lamps are used in a room the colors in the shades should have something in common. They need not be alike, but should play along similar tones of different hues.

Furniture. Good furniture will give many years of satisfaction, and for that reason ought to be bought deliberately. Every piece of furniture should be well constructed, and suited to its purpose and surroundings. If the piece is the type in which comfort is a factor, it should be distinctly comfortable. Furthermore, furniture ought to be simple in its structural and its decorative design. The average house of to-day is small, and so it is important to consider scale when selecting furniture and furnishings. The small house owner can not successfully use the larger, heavier pieces of furniture that may look so well in his neighbor's big house, for they will crowd his rooms.

Selecting furniture for the living room. The living room should contain enough comfortable pieces of furniture to accommodate each member of the family. It is not necessary that furniture be costly to be comfortable, but it must be designed to fit the body. Well made overstuffed furniture is the most luxurious of all the comfortable pieces, but there are other good types. A room will be more beautiful when two or three kinds of furniture are used harmoniously than when matched pieces are used. One should attempt to avoid anything in the living room that will give the impression of a "set," because it makes the room look commercial rather than individual. (See Fig. 68.) Figs. 198, 206, 213, and 12 show some typical examples of various designs and sizes of good overstuffed chairs, and it will be seen that it is possible to find a chair which will be in scale with the size of any room and its furnishings. No couch or chair should be so deep and soft that a person will appear awkward when seated, or will have difficulty in arising from it. Another

type of comfortable chair is the one which is partially upholstered. One of these is seen at the right of the fireplace in Fig. 206. This is lighter in scale than the overstuffed chair, and is a good type to choose in order to avoid too much bulk.

Less expensive but no less comfortable are the simple, well made reed or willow chairs. (See Figs. 197, 212, and 89.) These chairs will combine well with almost any furniture that is not formal or pretentious, and they may be finished with an oil stain or with enamel so that they will fit into any decorative scheme. Seat cushions and pads at the back of the chair offer an opportunity to use interesting color and pattern.

Many comfortable chairs are made entirely of wood or of wood with rush, cane, or upholstered seats. These may be found in designs which will be suitable in any kind of room. For example, Windsor chairs are comfortable, informal, and pleasing in line. (Figs. 1 and 197.) These are made in nearly all woods, and may have a cushion in the seat if desired. The ladder back chair with a rush seat is another interesting type that is suitable for the informal room. (Fig. 23.) In most living rooms one would enjoy having at least one low chair of a comfortable height for sewing, and it should be so placed that the light will be good in the daytime and at night.

A couch of some sort adds much to the comfort of the living room, and if it is to add also to the appearance of the room, it must be of good design. Large rooms will accommodate big upholstered davenports like the one in Fig. 91, but the smaller rooms should have sofas which are smaller in scale. It is wise economy to get a well made davenport in a temporary covering, such as denim, rather than to pay the same amount for one which is poorly constructed but covered with expensive material. Temporary covers may be found in good colors and designs to fit into

any furnishing scheme save a very elaborate one. There are many satisfactory substitutes for the large upholstered davenport. The willow day beds and davenports are comfortable and attractive; and even cheaper than these is the cot, which may be covered with denim or some other suitable material. Fig. 225 shows a cot with fitted covers

FIG. 225.—This offers a suggestion for a dormitory room, or for any combination living and sleeping room. The materials used are of minimum cost, yet the effect is homelike. The careful choice of the simple furniture and the inexpensive decorative details have given individuality to the room. It is interesting to note that a few of the books and magazines which one is reading, so arranged that their colors make a pattern which is pleasing to the eye, may bring as decorative a note into the room as a picture, or some other purely decorative object.

which slip over the ends, and cushions of the same material as the upholstery. This room shows what can be done with an exceedingly small expenditure of money. It has the essentials of a good living room,—simplicity and comfort.

Modern furniture is largely adapted from Italian, French, and English models. The Italian and French styles are very formal, and are suitable only for rich and formal houses. The English styles and the American Colonial styles, which were adapted from them, are unpretentious and are particularly appropriate for the American home.

The home maker should not be so much interested in securing an authentic period style, or a room in which all the pieces are historically correct, as in furniture which is beautiful in design and which combines well in size and texture with the other pieces in the room. Too much of any one kind of furniture in a room is undesirable. If all the pieces are overstuffed the room seems overpowering; the presence of too much wooden furniture produces an effect which is cold and hard; and if the living room is furnished entirely in willow it will look monotonous and seem to lack stability.

After the room has been successfully furnished to the point of having backgrounds that are good and furniture that is comfortable, suitable, and beautiful in line and color, the owner should bring into it the things that he particularly enjoys handling or looking at, provided they are good in design. Using one's favorite colors in a textile, flowers, pieces of pottery, or candles; having the magazines and books that one is reading, or likely to read, on convenient tables,—these are some of the ways of making a room homelike.

The dining room. The character of the furnishings for the dining room depends somewhat upon where the room is located. If it is a separate room, the traditional dining room furniture, consisting of the table, chairs, sideboard, and serving table may be used; but if the room is a dining alcove adjoining the living room, or is actually a part of the living room, it is more interesting to use less conventional pieces—a highboy or a chest of drawers, for example, and a gateleg or drop-leaf table. No matter how informal a home may be, there is always a certain amount of ceremony in the dining room, and because of the nature of the service of meals, the room calls for a dignified treatment.

The average person wishes to have a restful time at meals, and it is difficult to do this in a room which does not look restful. If there are many objects and much pattern in the

room it will look confusing; and when the large number of pieces of silver, china, and glass which make up the table service are brought in they will increase the unrest. The first thing to do, then, in order to obtain a restful dining room is to keep the background simple; second, to display very few objects; and third, to place the table appointments

FIG. 226.—This room is everything that a dining room should not be. It is restless and distracting. It shows that the owner has a mistaken sense of beauty, and has had no opportunity to train her taste.

in an orderly arrangement at meals. On the other hand, there are some people who desire a stimulating rather than a restful dining room and who enjoy patterned walls. If one wishes to use figured wall paper it is better to use it in the dining room than in the living room, for the dining room is not used for so long a period; and, furthermore, one may more easily dispense with other decorative objects in this room, and be content to let the walls themselves supply the decoration.

The dining rooms shown in Figs. 226 and 227 afford an interesting comparison. These are typical of the separate dining room; the same type of furniture is used in both,—pedestal table and splat back chairs; and there are color and pattern in the rugs. But what a difference there is in the quality of the rooms! Fig. 226 is everything that a dining

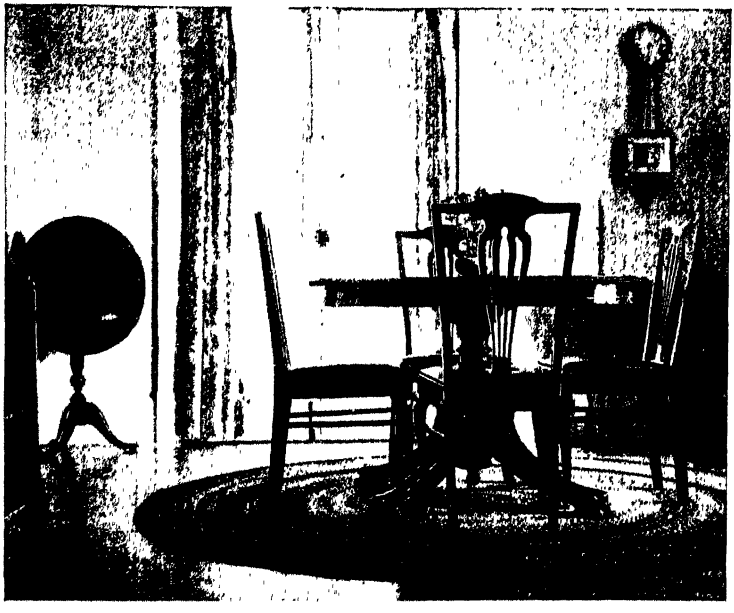


FIG. 227.—There is beauty in this dining room, and a simplicity which makes it a very pleasant, restful place in which to eat.

room should not be. Starting with the background of the room, one sees at a glance that the wall is so conspicuous that it stands out as the most emphatic thing in the room. If it had been necessary to keep this paneling on the walls the effect in the room might have been improved by using darker paper. The walls would then have seemed a unit, and would have taken their place as a background. The rug, too, is a poor background because it has too much contrast in light

and dark. The central light fixture is ugly in design; and the choice and arrangement of the furnishings show poor taste. The whole room bears the mark of ostentation, as indicated by the placing of the round doily, hanging down over the sideboard, and the display of glassware and china on the plate rail and sideboard. To say that plate rails can not be used successfully is not quite true, but they very seldom are. Unless a room is so high that there seems to be need for a horizontal line to break the unusual height it is better to omit the plate rail. If there is a plate rail in the room it is best to consider it as an architectural feature, and keep it free from china, pictures, and other objects. Occasionally one sees a room in which a very few decorative and unusually interesting objects have been used with success. For example, a pair of pewter plates, or a piece or two of brass or copper, may break up a wall space that seems too empty, and they may add a pleasant line or a note of color. A plate or a pair of plates of fine art quality, conventionalized in design, and of colors that harmonize with the room, may sometimes be placed upon the plate rail in order to balance the colors in the window draperies, or some other color in the room. Never should an array of china and bric-a-brac be displayed on the plate rail. In this example (Fig. 226) there are naturalistic designs of fish and flowers on the china; these are in bad taste, as is the quantity which has been displayed. The white linen cloths on the dark wood make too harsh a contrast in the room, and, with the exception of the runner, which follows the lines of the sideboard, they are badly placed. A darker cloth placed upon the table between meals would be more harmonious in the room. In addition to the strong value contrast the table cover contradicts the lines of the table and the lines of the room.

In Fig. 227 the room is so simple and so well designed architecturally that it makes a perfect background. The room is cream-white with mahogany furniture, and it has

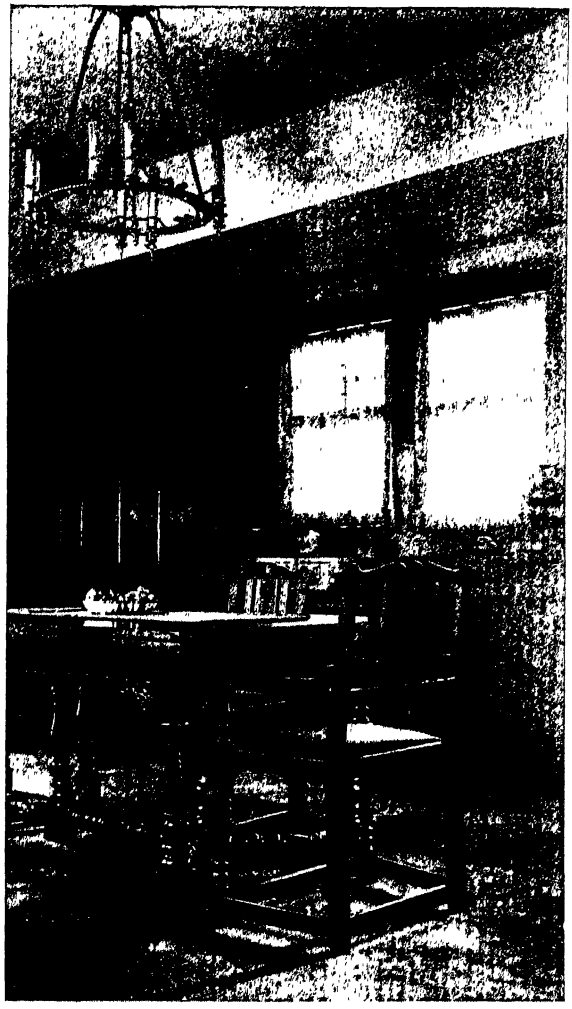


FIG. 228.—The atmosphere of dignity in this room is largely due to the use of the paneled walls and the formal furniture and lighting fixture.

received a decorative addition of color and pattern from some blue, green, and dull orange figures in the ivory-colored chintz draperies; from the bright green candles in brass candlesticks; and from a beautifully colored clock over the side table. Compare the furniture in these two rooms, and note that while the designs are similar in type, Fig. 227 has much more graceful lines. A pedestal table needs a strong base, but it need not be so heavy that it looks clumsy.

FIG. 229.—The general effect of this room is domestic, yet there is a suggestion of formality due to the bisymmetric arrangement of the furnishings. An appearance of added height has been given to this low-ceilinged room through the vertical lines in the chairs and the panel on the wall. The use of two rugs so placed that the eye travels across the narrow dimension of the room has helped to add to its apparent width.

Dining rooms of the traditional type are shown in Figs. 228, 227, 229, 230, and 231. The rooms placed in this order show a gradation from formality to informality, and a comparison of their furnishings will demonstrate that the character of a room is determined not alone by its furniture and accessories, but also by the way in which these are arranged. The stateliness of the Renaissance furniture and the electric fixture have made Fig. 228 a formal room. There

is formality in Fig. 227, too, but of a different sort. It is lighter, and less severe. The furnishings are not so imposing, and although they could be used in a handsome home, they are not inconsistent in a small, unpretentious house, such as this.

Although all the furniture in Figs. 229, 230, and 231 is of the cottage type, there is the impression of a little more

Fig. 230.—The charm of this room is due to its restraint. There is a beauty here that never comes with over-decoration. The plain walls bring out the lines of the furniture, and the delicacy of the Japanese print. They also emphasize the color and pattern in the draperies, the bowl of flowers, and the braided rug.

formality in Fig. 229 than is seen in Figs. 230 and 231. This is due to some extent to the lines of the tall straight chairs, but even more to the symmetrical placing of the group at the right. In Fig. 230 the dignified yet unpretending Windsor chairs, the gateleg table, and the rag rug create a frankly unceremonious room. An individual, attractive room has been created in Fig. 231 at an exceedingly small cost. This

room offers a suggestion to the young home maker who has high standards of taste and limited means. Instead of compromising on all of her furniture, she might do as the

FIG. 231.—Good pictures, well hung, and interesting decorative accessories have given individuality to this simple dining room.

young owner of this room did. She bought the table she wanted, and made it the nucleus of her permanent dining room set. She then selected the most inexpensive chairs and

rug which were good in design and color, and expects some day to complete her "air-drawn" room. In the meantime the pictures and decorative objects, which are beautiful and attractively placed, help to make a gratifying room.

The dining alcove which opens into the living room should, if possible, have furniture which will harmonize with the

Fig. 232.—This homelike group offers an interesting suggestion for the treatment of a dining alcove at one end of the living room.

living room. Fig. 232 shows an alcove which adjoins a living room. The chest of drawers is far more acceptable in this room than any sideboard could be. Such chests not only are attractive in a dining room, but they are useful because of the large amount of storage space which they afford. When one is able to place a table against the wall, as in this instance, it makes the room seem less like a dining room than when it is in the center of the room, and it affords the added enjoyment of a view of the out-of-doors.

Figs. 192 and 199 are dining room ends of living rooms.

In Fig. 192 there is less to remind one of the fact that meals are served here than there is in Fig. 199. The latter example (which, by the way, is the end of the room in Fig. 198) is quite frankly a dining room, yet it is not too obviously so. This room is a particularly good example of the combination of living and dining areas, because the furniture is suitable for either purpose. This point should be considered when one is selecting such furniture. A sideboard of the conventional type would mar a room of this sort. A china cabinet is used here, but it is not of the ordinary commercial type. The service dishes are behind the curtains in the lower part of the cabinet, while the upper part is treated as a design. The dishes and the brass have been selected for their beauty, and they have been arranged to make a decorative design. Unless one has some unusually decorative pieces of china and brass, and a knowledge of design, as in this instance, it is advisable to keep dishes concealed. A secretary is attractive as well as useful for the living-room dining-room combination, for linens and silver can be put into its drawers, while it supplies a writing desk and a case for books. (See Fig. 134.) If curtains are placed behind the glass doors china and glass may be stored there.

The breakfast room may have a gayer character than the dining room. Fig. 203, with its painted furniture, suggests the kind of room that would be agreeable in the morning, for there is a colorful freshness about it. Note that there are two drop-leaf tables in this room. One is used ordinarily as a side-table, but when it is desired to seat a larger number of people than one table will accommodate, the second is added to it.

Although a dining room ought to be simple, it should not be monotonous. In order to prevent its formality from being austere, the room may be enlivened through the use of some decorative note such as may come from the use of positive or dramatic colors, lights and darks, or shapes; or

from a combination of these. In the dining rooms shown here, this positive note which helps to make for "decorative quality" has been secured in various ways. In Fig. 228 it comes very largely through color contrast. The background colors in the room, as seen in the taupe rug and the oak paneling, are subdued. The contrast appears in the table mat and the chair seats, which are of greenish-blue; in the bowl of fruit on the table; in the Chinese bowl with bittersweet; and in the brass samovar on the ledge.

In Fig. 227 the decorative quality is the result of dark, clear cut, beautiful shapes silhouetted against a plain background; the colors, too, are decorative, for the rug is black and gray, with a note of sharp green which is echoed in the candles; and the draperies repeat the gray, black, and green, with an additional spotting of dull blue and yellow-orange. While this room has accented shapes, colors, and values, Fig. 229 emphasizes but two of these factors,—shape and color. The values are very much alike, and for that reason the effect of this room (Fig. 229) is less striking than the one which shows stronger value contrast. The line of the chairs makes an interesting pattern against the walls which are of sand color; the draperies have an ecru ground with figures of dull blue and several tones of soft, dull violet and reddish violet. The colors of the draperies are echoed in the blue hawthorne jars and the embroidered panel over the side table. Dashes of jade green in this panel add piquancy to the color scheme.

Lighting the dining room. Since the table is the center of interest in the dining room, the most successful type of lighting is that which concentrates the light upon the table. In the dining room it is rarely necessary to have a general illumination, and so a ceiling fixture, or one which throws the light against the ceiling, is unnecessary. Ceiling fixtures also give a less agreeable light than those which hang down over the table. With a fixture which throws

the light down, one is enabled to secure the homelike effect which comes from shadows and half-tones in the room. Care must be taken in placing the dining room fixture, for the light must not shine into the eyes of the people at the table, and the height must be so adjusted that the entire table will be well lighted.

Candles furnish the most delightful light for the dining room table, for they not only concentrate the light, and produce the most interesting reflections and shadows, but they have the effect of seeming to make the table a more intimate center.

The dining room, as well as the living room, needs simplicity in order to insure restfulness; sufficient harmony for unity, with variety enough to stimulate conversation; and a happy mean between formality and informality in order that an impression of dignity and hospitality may result. Because the dining room is used for a shorter period than the living room, it may receive a more striking treatment in line and color, but it should not be eccentric, for it must harmonize with the spirit of the entire house. In its relation to the rest of the house, the dining room may give the impression of being the accented note in an harmonious scheme.

The bedroom. The function of the bedroom is to promote rest. Since it is difficult to relax in a room that seems crowded with furnishings or with pattern, the bedroom should be simple; but unless there is a note of vitality in it the room will appear dull and spiritless. Vitality should be expressed in terms of the owner's individuality, for the bedroom is the most intimate room in the house, and may, therefore, be the most personal. This emphasis may be obtained through the use of line, color, or pattern, but it must not be too forceful or the room will become tiring. This is illustrated in Fig. 233 where there is so much emphasis in the designs on the walls, rugs, and draperies that rest is discouraged rather than promoted. The owner's fondness for

color and pattern could still have been gratified if a plainer rug and plain or inconspicuously figured walls had been used. The border on these walls has a tendency to carry the eye toward the ceiling and away from the center of interest in the room. Therefore it would be better to omit the border,

FIG. 233.—Such distracting pattern has been used in the walls and rug in this room that they fail to make a good background for the furniture.

and to use a simple picture molding between the ceiling and the side wall.

It is preferable to have the bedroom walls of some light neutral tone, as ivory, or warm light gray, than to have them of a definite color. Even though a blue or a yellow, for example, is pleasing, one would tire of an entire room of it. A more desirable way to use one's favorite colors is in the details of the room,—in pictures, drapery, and upholstery fabrics, and, if desired on the walls, in a pattern printed on

neutral ground. A bedroom which shows a variety of harmonious colors is more pleasing than one which is all one color. However, as in all beautifully colored rooms, there should be a preponderance of one color, such as a leading note of cool bluish tones, or of warm yellowish tones, which runs through the entire room and unifies the scheme. Light colors are preferable to dark colors for bedrooms, but if

FIG. 234.—A sense of quiet and comfort combine to make this bedroom a picture of what a bedroom ought to be. The inconspicuous two-toned stripe of the paper creates a restful background for the good etchings and the interesting furniture.

walls, rugs, and all the furnishings are light the room will be flat and characterless. Therefore it is as effective to introduce some contrasting values as it is desirable to use a variety of hues. There is sufficient value contrast in a room if the furniture is of a dark wood, as mahogany or walnut; but if the furniture is light, value contrast must be supplied in the accessories, as in the pattern of the draperies or seat covers.

Turn to Figs. 233 and 234, and note the difference in these rooms, which have so many similarities. Mahogany furniture of the Colonial type, striped walls, pictures, and

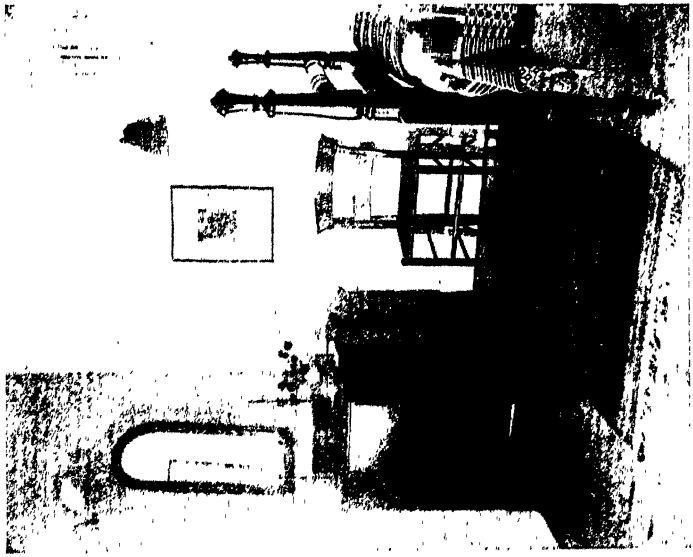


Fig. 235.

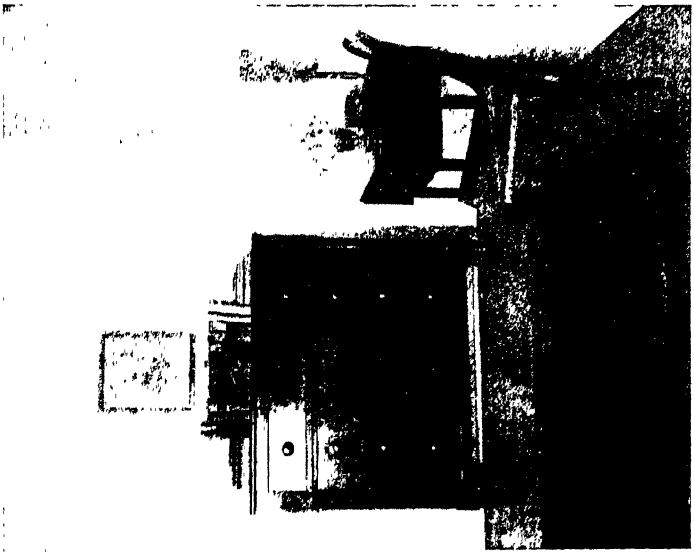


Fig. 236.

Figs. 235 and 236.—Two views of a bedroom in which a number of unmatched pieces of furniture have been harmoniously combined.

decided pattern are used in both rooms. Yet Fig. 234 is a good bedroom, while Fig. 233 is not. The striped paper in Fig. 234 is so unobtrusive that the beautiful etchings and the interesting lines of the furniture can be thoroughly enjoyed against it. Pattern and color accent are provided in the patchwork quilt of blue and white.

In general, bedroom furniture should be simple in design, and individual. If it is severely plain it must receive all of its distinction from beautiful lines and from fine proportions. However, it need not be severely plain. A beautiful structure may receive added distinction from the use of a choice bit of carving or turning. The conventional bedroom set of beds, bureau or chiffonier, and dressing table, all alike, is apt to be less attractive than a combination of separate pieces which have enough in common to appear well together, yet are different. (See Figs. 235 and 236.) If the room contains unmatched furniture which is of restrained design, it is possible to use a single piece which has as much turning as the cradle in Fig. 234, or the spindle bed in Fig. 190. These designs are delightful when they are used as an accent, but it is obvious that they would lose their charm if the same striking design were repeated many times. More interest may be afforded in the bedroom if a chest of drawers with a mirror above it is used instead of the conventional bureau with its mirror on upright supports. These chests may be found in a wide variety of designs, to harmonize with different types of rooms. (Figs. 194, 195, 234, 235, and 236.) Bedroom furniture should be in scale with the room, and it is always desirable to avoid either extreme of massiveness or of unsubstantiality. There should be something individual yet not eccentric about the design which is chosen, to raise it above the commonplace. A graceful line; excellent proportions; fine carving; or a few good curves upon a simple structure, may give distinction to a piece of furniture.

Since the bedroom is distinctly personal it may express its

occupant even more intimately than any other room in the house. The photographs and the special pictures which are characteristic of the owner and his taste, yet which seem too personal to be placed in the more public rooms of a house have their place in the bedroom. However, when one room is to be used as a combination of living room and sleeping

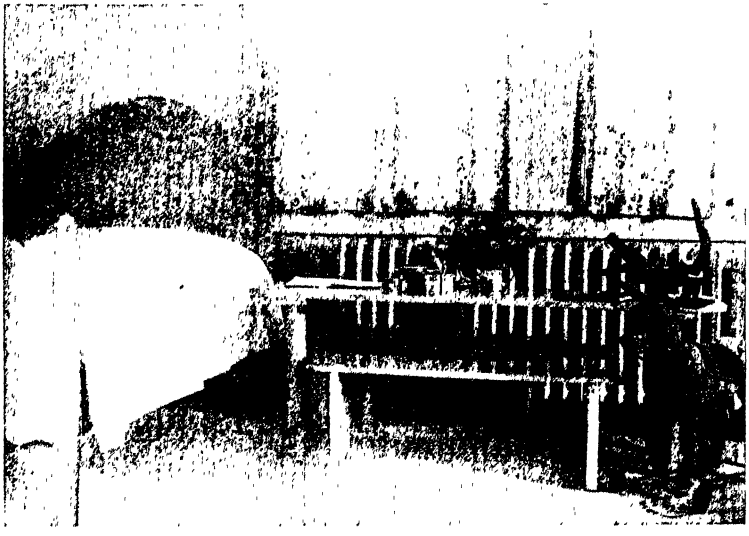


Fig. 237.—In this child's room a happy medium has been struck between drab dullness and the over-decorated nursery which excites a child. Here are soft colors, a restful background, a moderate amount of entertaining pattern, and a place for play. A noteworthy feature of the room is a cupboard at one end in which toys are put at bedtime.

room, there needs to be more of the impersonal aspect of a living room. Fig. 225 suggests the type of room which combines these two functions. In this combination room the day-bed or cot should have a dark cover, while in a bedroom a light counterpane would be appropriate. White would seem as much out of place in this type of room as would the conventional bedroom furniture. A highboy, if the room is large enough, or a chest of drawers similar to

those in Figs. 92 and 236, will help to solve attractively the perplexing question of how to secure adequate storage space.

The guest room is a second type of bedroom which should be impersonal, since it is a room in which anyone should feel at home. There should be no personal photographs in the room, and if any pictures are used they should make a general appeal. The spirit of hospitality is one of the finest attributes of a home. If it could be analyzed, it would be found to be the result of an aggregate of details, and among them, standing prominently forth, a genuine pleasure in the company of other people and consideration for their comfort. The home maker is able to show her desire to make her guests comfortable by anticipating their wants when she furnishes her guest room. Therefore the guest room should, if possible, contain the following things in addition to such necessities as a comfortable bed, a well lighted mirror, and sufficient storage space: a table or a desk on which one may write; a supply of stationery with pen and ink; a well equipped work box; a waste basket; a bedside table with a good reading lamp; books of general appeal; and a comfortable chair.

Under the topic of masculine and feminine qualities, on page 323, the general characteristics of the man's room, the woman's room and the guest room are discussed. There still remains the child's room. Two universally accepted judgments of men of science which have an important bearing upon this problem are:

(1) That environment has a strong influence upon mental and physical well-being, and upon the development of taste.

(2) That in the first six years of life mental and physical habits become so fixed that it is difficult to change them.

If these two ideas are kept in mind when children's rooms are being furnished, their rooms will be places where the child will be stimulated to a wholesome degree, but not ex-

cited. The room shown in Fig. 237 has many features worth considering. The colors are beautiful. The walls are a light grayish yellow; the background of the furniture is of a gray which has a yellowish tone, with bright blue, grayish green, and a note of black in the decoration; the curtains have a cream ground, and a gay little pattern of blue, green, and a sparkle of orange and red-orange. There always are two good pictures in the room, and these are changed at intervals so that the child may know and learn to enjoy many good pictures. These pictures are adapted to the age of the child, and they are kept out until they have become familiar, but not so long that the child will cease to notice them. There are cupboards and drawers for toys, and the toys are put away before bed time so that the room will appear restful, and there will be no temptation to shorten the nap in order to play. The soft background colors in the room are quiet in effect, as suits a bedroom, and during play hours there are plenty of bright colors in the toys which are brought out.

In addition to the considerations which have been described as applying to special types of bedroom, there are certain requirements which hold for all types. A good bedroom contains but few things, and those show good taste. Its furniture is convenient for use, and balanced in arrangement; the bed is placed where there will be enough fresh air, but where the light will not shine into the eyes of the sleeper; mirrors are so placed that a person standing in front of them will be well lighted in the daytime and at night. And, in addition, the room is thoroughly comfortable.

CHAPTER XX

INTERIOR DESIGN—(Continued.)

III. MAKING THE BEST OF ONE'S POSSESSIONS

FIG. 238.—A type of architectural background which is commonly found in rented houses. The confusing effect of this background has not been helped by the profusion of objects displayed.

The person who can build the sort of house that he likes, and furnish it as he pleases, is fortunate indeed. Most of us are forced to compromise, and to make the best of what we have. There are three remedies for the "decorative mishaps" that may have occurred through inheritance or because of unwise purchases. These are: (1) elimination, (2) rearrangement, and (3) concealment.

Elimination is the first measure. Each object in a room should be judged practically. If it does not add to the

beauty or to the comfort of the room it should be discarded. Even after this has been done there may be too many things for the size of the room. This will require an additional sifting out.

Rearrangement is the next step. Order is the first requirement for beauty, and what can be accomplished through arrangement is illustrated in Figs. 22 and 23, and discussed

FIG. 239.—This picture aims to show what concealment, re-arrangement, and elimination can do for a room. Portières have been used to cover the bookcases and columns in FIG. 238, and they have served to extend the wall space which was too small to accommodate a piece of furniture; the desk and rug have been placed to harmonize with the lines of the room; the window and mirror over the built-in buffet have been covered with an inconspicuous textile which harmonizes with the woodwork; the fussy and inappropriate decorations have been removed, and a single decorative arrangement has been substituted. These changes have simplified the agitated-looking room, and have made it restful.

under the topic of orderly arrangement, or "Shape Harmony."

Concealment is the last measure. After all the unessentials have been eliminated and the room has been well arranged, some unsightly objects, necessary for comfort, may remain. Then the problem of hiding their deficiencies is met.

Some problems necessitate all three measures. Figs. 238 and 240 show the kind of room that is too frequently seen in small houses and apartments. The principles of proportion and emphasis are violated here. There is so much built-in equipment as compared with the size of the room that the amount of wood becomes oppressive. This small dining

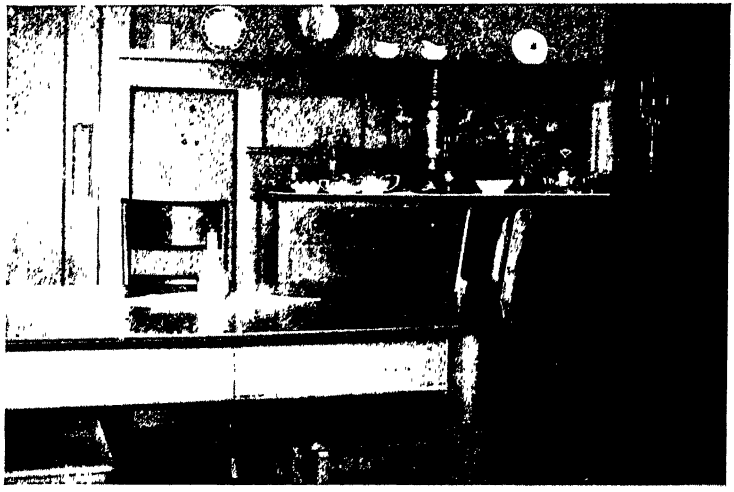


FIG. 240.—Another view of the dining room in FIG. 238, showing the misuse of a plate rail, and poor treatment of the sideboard and table.

room has a beamed ceiling, a plate rail with panels below it, and an elaborate built-in buffet. Between the rooms are built-in bookcases upon which rest heavy, badly proportioned pillars. Lines of wood on the bookcase doors are so emphatic that they detract from the appearance of the books. The built-in sideboard is too elaborate in its design. The house in Fig. 238 is not owned by the occupants, so the built-in sideboard, the built-in bookcases, and the pillars must remain, and the occupants must make the best use they can of them.

There are other mistakes in this room besides the archi-

tectural defects. Good taste demands the elimination of most of the objects which have been placed on the sideboard, and all that are on the plate rail. Because there is so much emphasis in the background of this room there should

FIG. 241.—Here the plate rail in FIG. 240 has been cleared of its meaningless decoration, and has become a part of the architectural background of the room; a consistent number of harmonious objects have been placed upon the sideboard; a rep cover which fits the table and harmonizes with the color scheme takes the place of the white doily, which was too small, too light for the room, and badly placed; and the little vase has been replaced by some fruit in a blue-green bowl, which is large enough to be in scale with the table.

be fewer decorative objects than can successfully be used in a room where the background is simple. The vase on the table should be removed because it is too small for the table,

and the doily, because it is too small, too light, and not an harmonious shape. This room is dark, and the white electric globes stand out too prominently against the dark oak of the sideboard. In Fig. 239, which shows a rearrangement of

FIG. 242.—A convenient, attractive arrangement for a study table is seen here, and a suggestion for the treatment of an unsightly radiator.

this room, the white globes are replaced by others which are dark enough to harmonize rather than contrast with the wood. The four globes hanging from the central light fixture made this fixture seem too large to be in scale with the small room. Frosted glass bulbs help to reduce the size. The

white curtains were too light in the dark room, and so they were dyed. The small white doily was replaced by a colored cover which is a better size for the table. The mirror and the window of the built-in sideboard were covered with strips of a fabric on which appears a faint pattern in indefinite colors. The fabric harmonizes in color with the oak, and makes an inconspicuous background. Then portières, which

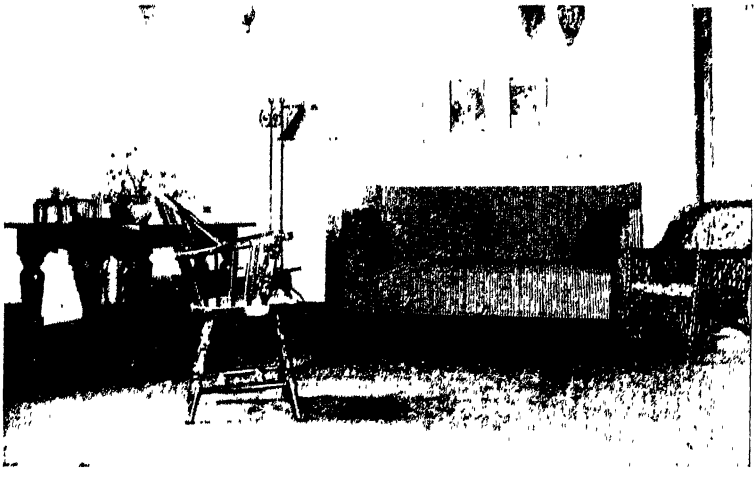


FIG. 243.—Here the ugliness of a sofa like the one shown in FIG. 244 has been concealed by a denim cover. The furniture, which is sturdy yet reasonably light in scale, and the simple accessories, give an inviting appearance to this room where girls come to study.

are full enough to be drawn across the entire opening when it is desired, were hung over the offending bookcases and pillars. While these portières are velvet, any inexpensive material which harmonizes with the room in color and texture could have been used. The rugs were laid straight to harmonize with the lines of the room. To add color, brass candlesticks and a black vase with bittersweet were placed on the buffet, and a blue-green Chinese bowl with fruit on the table.

In this process of elimination it is often necessary to use a saw in order to make ugly furniture presentable. In its original state the sideboard in Fig. 241 was a shiny golden oak. It had a carved back with a mirror and two shelves, and there were fussy brass handles on the drawers. It was a simple matter to remove the ornate back and to put on this plain one; then to take off the varnish and to fill and stain

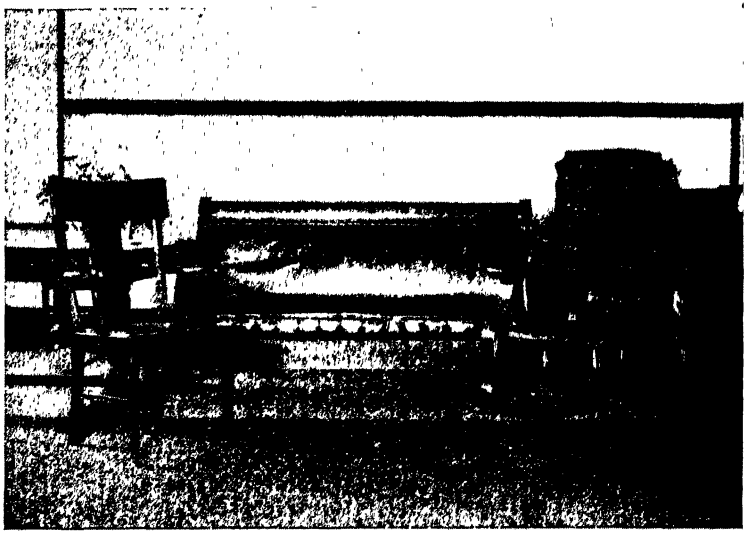


FIG. 244.—Furniture need not be so large as this in order to be strongly built. The scale of these pieces, the leather upholstery and the ugly lines of the furniture give to this room the effect of a dreary institution.

the wood the soft color of antique oak. It was then shellacked and waxed, and wooden knobs were substituted for the brass handles. In just the way that this sideboard was simplified, a fireplace may have an ornate mantel removed, and an over-decorated bureau may have the top taken off, the mirror placed in a simple frame, and hung above it.

Frequently a radiator is an unsightly object in the room, and sometimes it is possible not only to conceal it, but to

make it attractive. This was accomplished in the room shown in Fig. 242, where the tall radiator came just behind the study table and detracted from its appearance. A coarse cover which harmonized with the wall made the radiator less conspicuous, while a tray and bowl of bittersweet, which could not be injured by the heat, contributed a note of colorful interest to the entire group.

Fig. 243 is a classroom which was assigned to a girls' organization for a reading room. These girls had a very limited budget, and were reluctant to refuse the gift of a bright red and green carpet and the clumsy leather covered sofa shown in Fig. 244. They knew that the effect of their room would be spoiled unless something were done with these things, and so they had the carpet dyed brown, which harmonized the bright red and green figures and made an inconspicuous rug. They concealed the sofa by making a slip cover of brown and tan striped denim; and then they made some copper colored silk shades to cover the saucer-like white glass shades and the electric bulbs. Many unsightly couches and overstuffed chairs can be made to become decorative assets in the room by the use of slip covers of materials and colors which harmonize with the room. Furniture which is as clumsy and ill-shaped as the chairs in Fig. 244 should be discarded as soon as practicable. In the meantime these chairs should be placed in the darkest, most unobtrusive positions so that they will not loom large in the room. Small objects should not be placed near them, for a contrast in scale will make clumsy furniture look more ungainly than ever. A shawl of good color, folded and put over the back and seat of an ugly chair will sometimes help to conceal its defects.

Besides elimination, rearrangement, and concealment, one can manipulate lines and colors in such a way that remarkable changes may be effected. Rooms and windows which are too square may be made to resemble oblongs through the

use of a decided line movement in one direction; oblongs which are too long may be made to appear shorter by using lines which repeat, and thus emphasize the short side. Objects may be emphasized or suppressed at will by the way in which they are placed in the room; and by means of the colors used in the backgrounds against which they are seen, and in the objects around them. When one must make the best of what one has, the ability to use color well, and to apply the principles of art is of inestimable value.

CHAPTER XXI

INTERIOR DESIGN (Continued)

IV. THE SELECTION AND ARRANGEMENT OF PICTURES

The appeal of a picture. Pictures make their appeal to individuals through their story, their beauty of line, the quality of their color, or through the interest of their pattern. It is only after we have learned to appreciate line, color, and pattern for their own sake that we realize that a picture does not need to tell a story; that the appeal of art, as compared with literature, is its appeal to the sight as well as to the imagination, while literature appeals to the imagination only. Many people are inclined to attach too much importance to the story which a picture tells. This may be the result of early training, for children, before they can read, are taught words and facts through their use. A picture may, however, be of literary interest, provided that it also has the characteristic art qualities--beautiful drawing, fine color, and pattern. An artist should never attempt to imitate nature. His picture should be an interpretation rather than a literal representation of a subject. The camera can produce more accurate representations of nature than the artist ever can, and a story can be told better through the medium of literature or the drama than by means of line and color. Therefore, painting is put to its best use when the artist so interprets his theme in line and color that the person who looks at the picture receives the same impression of the character of the subject that the artist felt.

Since pictures should be interpretations, the individuality of the artist is far more important than his technical skill.

Pictures are great in the degree that their painters are great, spiritually or intellectually. In selecting a picture, one's first concern should be for the individuality which it expresses. What was the artist's appreciation of beauty, and his capacity for sympathy? Was he sincere? These attributes in addition to technical skill, are the essential qualifi-

FIG. 245.—THE VIRGIN AND CHILD, by Pinturicchio. (*Courtesy of Anderson, Rome.*)
The delightful pattern of this picture is the result of a carefully arranged plan, and its interpretation shows the sincerity and the love of beauty seen in so many paintings of the early Renaissance.

cations for the artist, if his work is to have beauty instead of prettiness,—sentiment instead of sentimentality.

The composition of a picture. All pictures have a *composition* or design. Sometimes the plan of the composition stands out prominently, like a framework, but oftentimes it is so obscured that the casual glance does not reveal the

outline upon which the picture was built. If the framework is badly designed the picture appears to lack organization, while if it is so concealed that it can not be traced the picture seems structureless.

In Pinturicchio's "Virgin and Child," Fig. 245, the plan

FIG. 246.—Japanese print by Toyokuni. The dramatic use of pattern and color have given decorative quality to this picture. It adds to the enjoyment of Japanese prints when one remembers that the artists conventionalized their forms and their colors, and that they thought of their figure studies as designs rather than as photographic representations of individuals.

of the composition is very evident. The framework is a combination of the circle and the triangle. The triangle, formed by the figures of the Madonna and the Child, has

been harmonized with the circle through the curved lines in the figures and draperies. The arrangement is unified still more by the circles of the halo and the rhythmically repeated heads of the cherubs. Within this well built composition a delightful pattern is formed by the spotting of light and dark masses. Pinturicchio attempted to paint an idea, and he

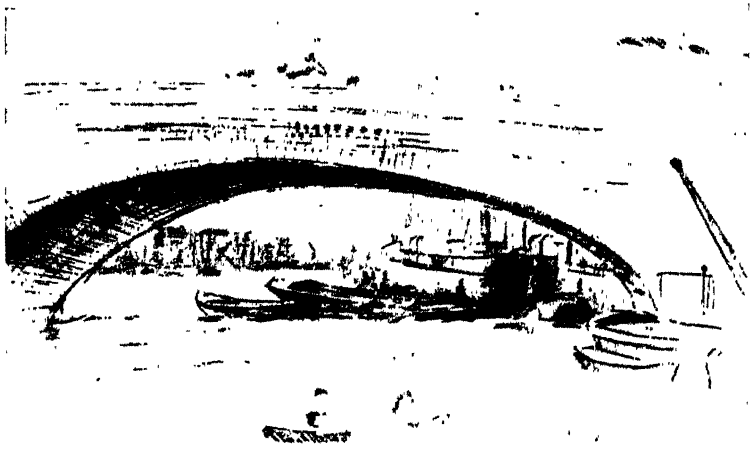


FIG. 247.—LONDON BRIDGE, by Whistler. (*Courtesy of the Minneapolis Institute of Arts.*)
The exquisite beauty of the drawn line can be enjoyed to a marked degree in a good etching. Such a picture should be hung over a desk or so placed that one can look directly into it.

chose to do it by means of this decorative pattern instead of trying to represent it literally. This picture appeals to one not only because of its delightful pattern and its absence of realism, but because it is so sincere and unaffected in its interpretation.

Pattern, line, and color in pictures. Pattern is at once evident in a study of the Japanese print in Fig. 246. In the original print, color contributes to the interest, but the pattern comes first. The photograph shows the distribution of

the light and dark masses, and of plain and figured surfaces which are so arranged that a beautiful pattern is formed, and the effect is decorative.

In many pictures it is seen that the artist is primarily interested in line, as in the Japanese print in Fig. 105, the

Fig. 248. —The Shepherdess, by Millet. (*Courtesy of the Minneapolis Institute of Arts.*)
There is great beauty in the dramatic simplicity of the lines in this wood cut.

Whistler etching in Fig. 247, and the Millet wood-engraving in Fig. 248. In these pictures the quality of the drawn line is so beautiful that they would give pleasure, whether or not they were "faithful likenesses" of their subjects. Here one does not feel a need for color.

Color is, perhaps, the quality in pictures which is most

universally enjoyed. Grave colors and gay, restful and stimulating, make their special appeal to the individual. Just as the great artists interpret forms, so they interpret colors instead of representing them naturalistically. A

FIG. 249.—MRS. ROBINSON, by Gainsborough. (*The Wallace Collection.*)
The social quality of the subject of this painting is reflected in the delicacy and the grace of the treatment, and in the fine scale shown in the texture.

standard for quality in color may be found in the works of such painters as Rembrandt, Velasquez, and Whistler, and one's own selections may be measured by comparing them with the works of these or other masters in the use of color.

Sometimes all the elements of a picture—theme, line, pattern, and color—are found in a single example, as in the painting of "Saint Genevieve" in Fig. 72. In this picture

Fig. 250.—Beatrice D'Este, by Ambrogio di Predis.
The reserve which marks this picture gives to it an air of formality.

Puvis de Chavannes tells his story with all the simplicity of greatness. The saint, who was the protectress of Paris, is watching over the city while her people sleep. All the

strength of character, and the faith of the artist are seen in his interpretation of the story of this saintly, patriotic woman. One knows instinctively that this painter could not stoop to the pretty, or the sentimental kind of picture. The photograph suggests, but does not show the subtle colors which are in the painting. The quiet, peaceful, blue night is suffused with moonlight, and there is a soft glow from the lamp within the house. The line is particularly beautiful in this composition. The austerity of the vertical and horizontal lines has been lessened by the sparing use of restrained curves. And the beautiful pattern of the whole design shows such perfect balance of light and dark masses that the impression of the repose of night is enhanced.

The suitability of the picture to the room. So many good pictures are available that one can find those which will give pleasure and at the same time are appropriate for the setting in which they will be used. A good picture has one or more of the following characteristics: beautiful, expressive line; a choice creative pattern; an excellent arrangement of refined color; or an elevating theme, well interpreted in form or color. This is as far as one needs to go if the picture is to be placed in a gallery or in a portfolio; but if it is to go into a room which is lived in, other qualifications must be considered. Is the picture in keeping with the furnishings of the room? Will it be suitable for a man's room, a woman's room, or a child's room? Since pictures are the results of the painter's personality there will be hostile and friendly settings for them, just as there would be for their creators. Gainsborough's "Mrs. Robinson" (Fig. 249) is an example of the social type of picture. It is feminine, and refined. It is the type of picture that one would expect to see in the bedroom in Fig. 191, or in the drawing room in that house. Two portraits which are a different type of social expression are seen in Figs. 140 and 250. These are more serious than the Gainsborough portrait, and would not be suitable for light

frivolous rooms. These pictures find their natural setting in rooms similar in type to Figs. 192 and 228, but may be used in any dignified, more or less serious environment.

The religious picture, with its spiritual quality requires a special setting, for it is obvious that it would be entirely out of place in a gay, social room. Ordinarily religious

A.

B.

Fig. 251. - A subject which is as domestic as this looks overdressed in an elaborate gilt frame. Note the improvement which comes from the removal of the carved outer portion of the moulding.

pictures should be placed in the more personal rooms of the house, but, if the atmosphere of the home is such that a religious picture will be a sincere expression of the life of the family, then it may be hung in the living room. Even in these circumstances it is well to hang a religious picture over a desk, or in some similar place where it will seem to belong particularly to the owner, and not to the public. (See Fig. 257.)

In domestic rooms one should avoid pictures which are distinctly social or formal. Fig. 251 is as domestic as "Mrs. Robinson" is social. One should not hang these two pictures

in the same room, because they have nothing in common. Although the extremely social or the very formal picture would be out of place in a domestic room, it is not necessary to go to the extreme of domesticity, as in this subject. For such rooms there is an intermediate type of picture. Most

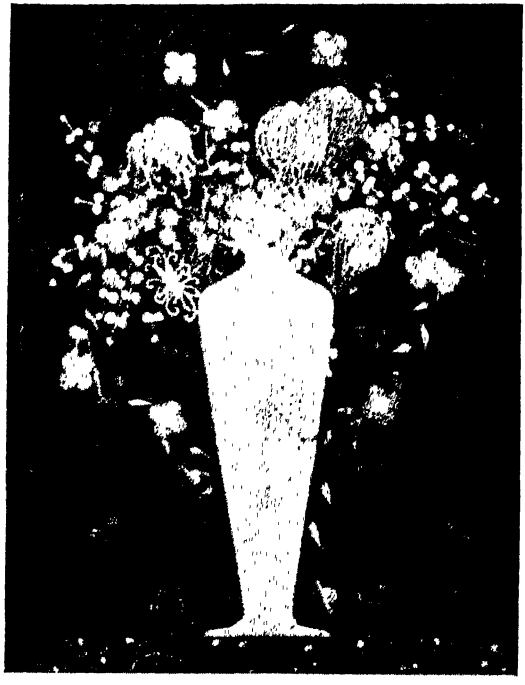


FIG. 252.—Flower Study by Rhea Wells.
The fanciful, cleverly invented flower forms, and the dramatic colors, which are but faintly suggested in the photograph, have lent decorative value to this picture.

landscapes, etchings, Japanese prints, and many portraits fall into this group. These pictures may be said to be "impersonal" because they are neither distinctly masculine nor feminine. (See Figs. 246, 247, 252, 254, 118, 127, 168, and 169.)

It is not the subject of the picture, but its interpretation

that gives it individuality. Holbein's "Erasmus" (Fig. 253) is masculine, and "Mrs. Robinson" (Fig. 249) is feminine because of the way in which each is painted and not because they are portraits of a man and of a woman. A woman's portrait may be painted in a masculine manner, and a man's

FIG. 253.—ERASMUS, by Holbein. (*Courtesy of Stevens' Art Store.*)
Not only the picture but the character of the frame would be suited to a man's room or to a living room of a domestic type.

may give an impression of a feminine quality. For example, the woman's figure in the wood block print in Fig. 168 has something of the vigor that characterizes the "Erasmus," and one can imagine these pictures used in the same room, in a man's room or in a family living room.

The artist who creates a picture is giving forth an expression of his character, and the person who chooses the picture for his home does so because it responds to similar characteristics in him. While its interpretation may be

satisfying, and its line, pattern, or color pleasing, a picture must also be right for the room before it is hung on the wall.

Pictures in relation to the background of a room. If there is a great deal of color in the room, and much pattern in the wall paper, it will be better, for the sake of proper emphasis, to have no pictures on the walls. Perhaps a mirror, or a plain textile hanging which will supply interesting variations in color or shape will prove to be the desirable wall decoration. If there is a great deal of color in the room or in some part of the room, and but little pattern, the most suitable pictures would be drawings or etchings, which supply interesting line and pattern, yet do not introduce more color. If a room is rather monotonous in color, pictures should be selected which will supply color interest.

How to frame a picture. Shall a picture have a mat, or be framed close? A mat will give an agreeable rest space between the picture and the walls if the walls have a slight pattern, and a mat will enlarge a picture which might otherwise be too small for the space it is to occupy. A mat should be used on etchings and on pictures which show decided movement, especially when the lines of the picture have a tendency to carry the eye abruptly out of the frame, and likewise when the subject itself seems to fill the space so that there is very little background. (See Fig. 118.)

Mats should be inconspicuous, and for that reason light mats should not be used on dark pictures or dark mats on light pictures. Ordinarily one should select a mat which is somewhat darker than the lightest tones in the picture. If the light tones appear only in very small amounts, then a slightly darker mat should be chosen so that the mat will not contrast harshly with the general value of the picture. The "Lady in Yellow" (Fig. 254) has a mat of agreeable color and of adequate size. Since the picture is delicate in color and in treatment, a light mat was chosen. The mat was

tinted with a pale ivory tone to harmonize with one of the lighter colors in the picture.

The type of frame which is chosen should be in harmony with the picture. To illustrate, since the treatment and the color scheme of the "Lady in Yellow" are so delicate, a

FIG. 254.—THE LADY IN YELLOW, by Holbein the Elder.
This charming picture has been enhanced by a mat of suitable size and shape. The colors of the narrow dull gold frame and the toned mat harmonize with the colors in the picture..

frame which is fine in scale was selected. It is of a dull gold with a bit of brown rubbed into it to make it harmonize with the yellow, orange, and brownish tones in the picture. The "Erasmus" (Fig. 253), which is forceful, has a heavier frame.

Although this frame has a little enrichment, it is simple enough to be in keeping with the subject and its treatment. This frame, too, is of gilt, and it has had so much brown rubbed into it that it harmonizes perfectly with the rich,

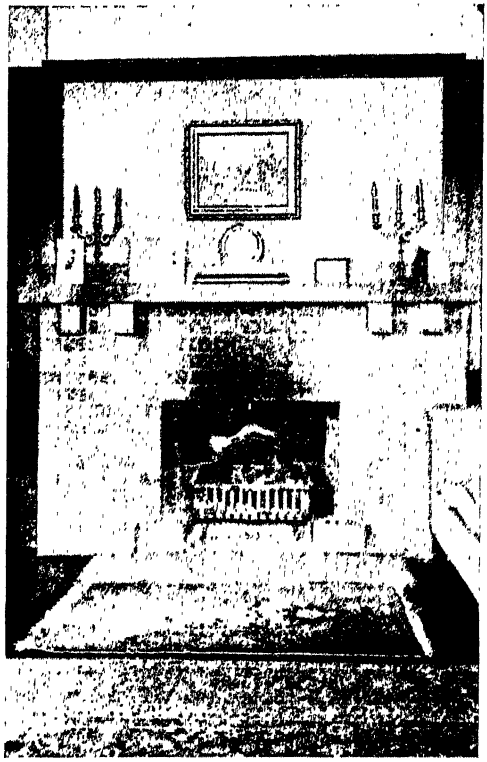


FIG. 255.—This illustration shows that when a clock and a picture are used over a fireplace they create two competing centers of interest. The photographs and the motto, which make too many scattered notes of emphasis here, also are undesirable from a decorative point of view.

deep colors of the picture. When choosing frames, it is well to remember that the frame should form a rest space between the picture and the wall, and should be less conspicuous than the picture itself. The simple frame in Fig. 251B is suited

to the subject, while the ornate one in Fig. 251A is incongruous with the idea of the old kitchen and the woman peeling potatoes. The frame should not be more striking than the picture, and, as a general rule, one is safe in selecting

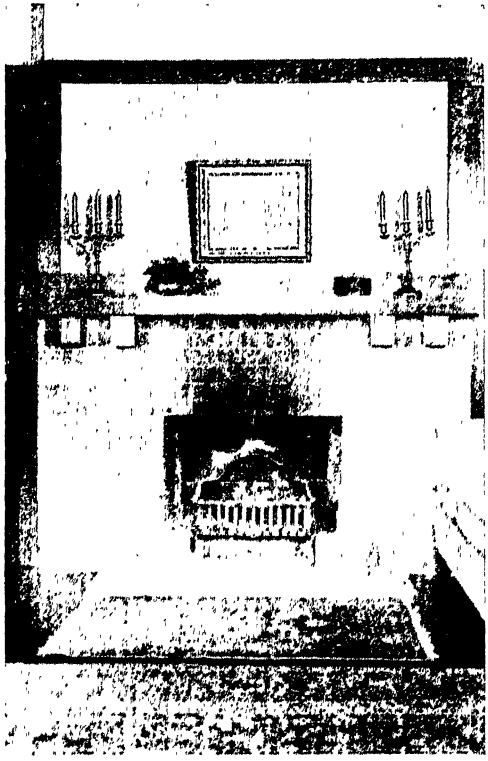


FIG. 256.—Note the simplicity of effect that has come from the removal of the clock and photographs, the lowering of the picture, the use of the copper bowl with flowers, and a colorful little basket.

a frame which is not so dark as the darkest tones in the picture. This is a variable rule, however, for a narrow black frame is often successfully used,—particularly for etchings and for Japanese prints, which usually have rich blacks in their pattern. The most generally useful type of frame is a

simple molding of dull gold which may be keyed to the predominant color tones of the picture by having a bit of color rubbed into it. Shining gold frames are too emphatic to make good backgrounds for pictures. Frames of unfinished

FIG. 257.—Pictures should be hung low enough to group with furniture, for they, as well as the other decorative objects which are used in an arrangement, should be considered as elements in a design.

wood, either waxed or not, are inexpensive and may be very attractive.

How to hang pictures. Light pictures are best hung on fairly light walls and dark pictures on dark walls or in dark corners, except when, for balance, one hangs a dark picture

over a dark piece of furniture. For the sake of shape harmony, tall pictures should be hung in vertical wall spaces, and broad pictures in horizontal spaces. (Figs. 282 and 256.) Pictures may be grouped so that two or three vertical ones

FIG. 258.—A mirror makes an excellent substitute for a picture when the other objects which are to be used in the group are rather striking in effect.

will give a horizontal effect, which will harmonize with a broad wall space. (Fig. 262.) One must be very sure, however, that the pictures which are grouped are in harmony with each other. A painting which shows a broad, bold technique should not be placed next to one which is fine and delicate. Scale is the next consideration when

hanging pictures. Small pictures should not be placed next to large ones, nor should they be hung near a large piece of furniture. Similarly, large pictures are out of scale

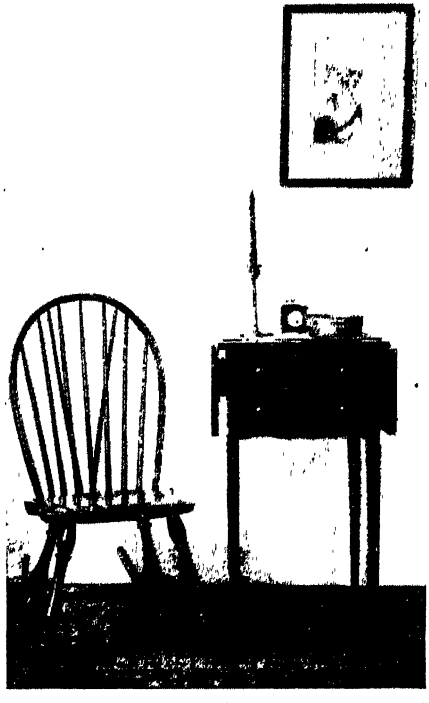


FIG. 259.—Before a picture is hung it should be studied to determine whether its lines carry the gaze to the right or to the left. If the composition causes the eye to travel to the right, the picture should not be placed as in the illustration above, because it leads the attention away from the group.

in small rooms, or when hung near small and delicately proportioned pieces of furniture.

Pictures should be so hung that the center of interest comes at about the eye level. One should not first see the furniture in a room, and then look up and see a line of pictures on the wall. Sometimes it is desirable to have them

lower than the eye level, in order to form a group with a desk or a table; or higher, as over a bookcase —but the variation should be slight. (See Figs. 198 and 199.) Most people

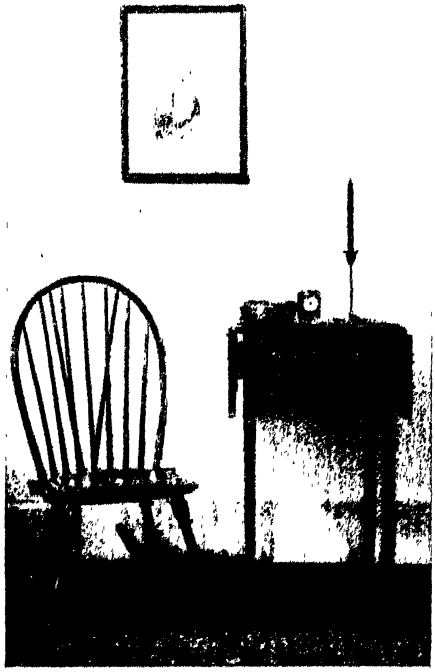


Fig. 260.—In this group the picture has been hung so that the lines carry the gaze down toward the table. The arrangement on the table then leads the gaze to the chair, and so the eye carries back to the picture, completing an easy, rhythmic movement.

hang their pictures too high, and the eye is carried up toward the ceiling, instead of being kept at the most interesting points in the room, which are at about the level of the eye, and below that point.

In successful picture arrangement the principle of em-

phasis plays an important part. If pictures are to be thoroughly enjoyed there must be plenty of plain space around them. (See Figs. 1 and 213.) In over-mantel arrangements one often sees a picture over a clock, each striving for attention as in Fig. 255. Note the improvement in Fig. 256 which comes as a result of removing the clock, lowering the picture so that it groups with the mantel, and substituting the bowl

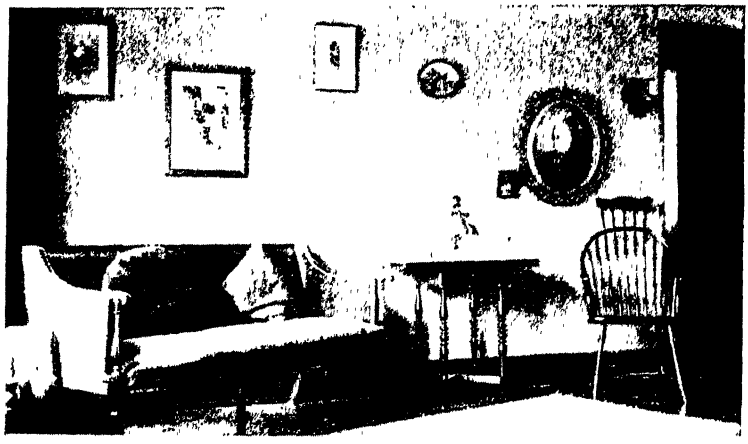


FIG. 261.—Even if the furnishings in this room had been well chosen and well arranged, the selection of some of these pictures and their arrangement would mark the room as impossible. The crayon portrait and the oval landscape are unworthy of being hung, and pictures which are as unrelated in size and shape and color as those shown here should not be placed on one wall.

of flowers and the box for the trite motto and the photographs. Photographs, like religious pictures, are personal, and if used in the living room they should be framed and placed on a desk, or in some similar position. (Fig. 258.) This illustration also shows a mirror well used. There are so many rather small decorative objects on the desk that a picture might have created too much emphasis. The mirror, however, provides the size and shape that are needed to balance the arrangement, without over-emphasis. As compared with this group, the decorative objects in the desk

arrangement in Fig. 257 are just enough simpler to make the use of a picture successful.

Pictures should be hung over a single piece or a group of pieces of furniture so that they will become an integral part of the furnishing of a room, rather than appear to be isolated spots. When a picture is grouped with a piece of furniture it is desirable to see the two as a unit. This may be accomplished

FIG. 262.—In this illustration both the offending and the unrelated objects seen in FIG. 261 have been removed, and, in order to secure an harmonious group, others have been substituted. The furniture has been re-arranged as suggested in FIGS. 22 and 23.

by hanging the picture very near, or by actually resting it upon the piece with which it is to group. (See Figs. 257 and 213.) Every decorative object near the picture must be considered as a part of the group, and must take its proper place in order to secure a balanced scheme. (Figs. 257, 258, and 282.)

Rhythm, or consistent movement, must also be considered when arranging pictures and decorative objects. Pictures and objects which possess line movement should be

so placed that their lines carry the eye toward a group, and not away from it. (See Figs. 259 and 260, and Figs. 118A and B). When hanging pictures one should see that they are not so hung that they carry the eye up toward the ceiling, as in the jagged line in Fig. 261. Usually the tops or bottoms of the pictures should be on a straight line. (Fig. 262.) If the object underneath the group has a straight line across the top, as in this sofa, then the bottoms of the pictures should repeat that line; but if there are varied lines in the piece of furniture or in the heights of the group under the picture, it is better to have the pictures on a straight line at the top.

Pictures should hang flat against the wall, and not tip forward. If the screw eyes which carry the picture wires are placed high in the back of the frame the picture will not tip forward. If pictures are to be hung with visible wires they should be suspended by two parallel wires rather than with one fastened at both sides of the picture, which makes a triangular shape against the wall, destroying shape harmony and violating the principle of rhythm by carrying the eye away from the picture.

The rooms shown in Figs. 261 and 262 illustrate the violation and application of the art principles to the selection and arrangement of pictures. To secure a satisfactory arrangement in Fig. 261 it would be necessary, first, to eliminate some of the things which never can be made to harmonize with the others. First, the crayon portrait with its absurdly ornate frame must go. It has no art quality, and while it may mean much to the owner because of its association, its place is in a portfolio rather than on the living room wall. The picture next to it must be eliminated, also, because it is too small for so large a wall. A picture as small as this might be placed on a desk, or grouped with something with which it is in scale. The landscape, which is unsuitably framed in an oval frame, must also be weeded out; so must

the etching next to it. The white mounting of this etching makes so strong a value contrast with the walls that it becomes unpleasantly obtrusive. The vase on the table should not be used as a decorative object because its struc-

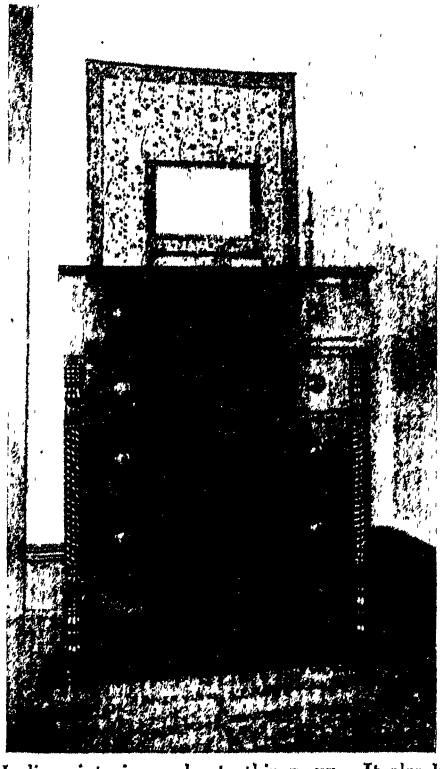


FIG. 263.—An India print gives color to this group. It also helps to bring the mirror into scale with the size of the chest of drawers.

tural design is ugly. In Fig. 262 the furniture is rearranged so that it harmonizes with the structural lines of the room. The pictures are related in size, and are hung with regard to the structure of the room and to its furnishings.

How to judge picture arrangements. All picture arrangements might well be judged by these three simple tests:

(1) Is each picture in the room there because it helps beautifully to complete a group?

(2) Are the pictures hung low enough so that they are seen with the furniture as a unit?

(3) Are they all hung on about the same level in the room so that they do not form a jagged line upon the walls?

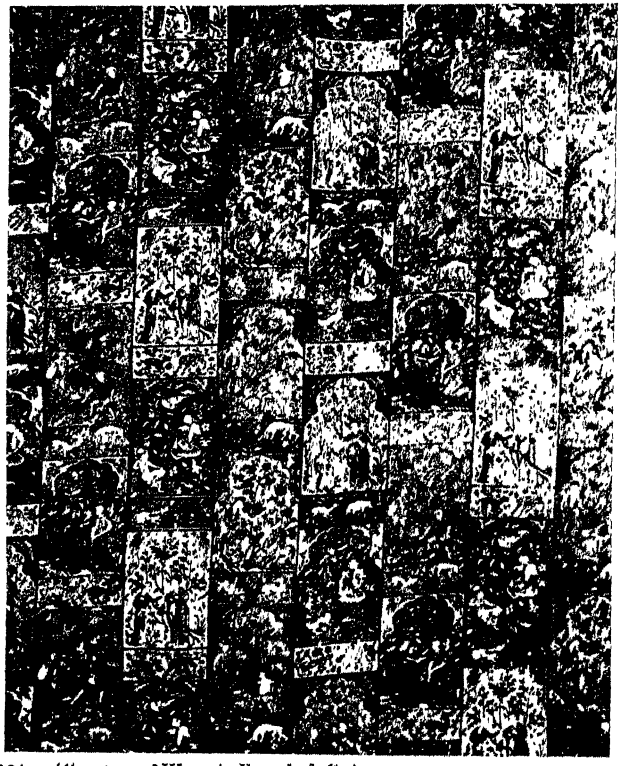


FIG. 264.—(*Courtesy of Wm. A. French & Co.*)
This printed linen, with its delightfully colored Persian design, is a type of textile which makes an interesting substitute for a picture. The pattern is flat enough in effect to make it suitable for a wall decoration, and it possesses a decorative quality.

Substitutes for pictures. There are several substitutes for pictures on the walls of a room. Mirrors, and embroidered, block-printed, or woven textiles may supply the color and

pattern which are desired. The use of the mirror in Figs. 258 and 212 has been mentioned, and other substitutes may be suggested by Fig. 229, with the Chinese embroidered panel; the Indian embroidered panel in Fig. 164; the Indian printed textiles in Figs. 225 and 263; and the printed linen in Fig. 264 with its Persian design. The choice of these textiles is regulated by the same considerations as is the selection of a picture. The size, shape, color, texture, scale of the pattern and its appropriateness for the owner and for the room are the factors which are involved.

There is no single way in which a person reveals himself so completely as he does through his choice of pictures and decorative objects. For that reason it is not fair to one's self to keep pictures on the walls which have been outgrown intellectually or æsthetically, for it must be recognized that when a person has pictures about him he is electing them to speak for him.

CHAPTER XXII

INTERIOR DESIGN (Concluded)

V. FLOWER ARRANGEMENT

Beautiful flower arrangements add immeasurably to the livableness of the home, and they give such pleasure that one is richly rewarded for the thought which is put into them. In considering flower arrangements as a part of the decoration of the room in which they are used, attention is called to some of the things which must be kept in mind when the flowers are being arranged.

The characteristics of the flowers themselves should be noted first. Their line, color, and texture must be studied, in order that a suitable container may be chosen for them and that they may beautify the room in which they are placed.

Beauty of line and color. Flowers, like pictures, may be enjoyed for their line, their mass, or their color. Flowers and berries which have much beauty in their lines should be so arranged as to emphasize this quality. In order fully to enjoy line, a single spray, or a very few blossoms should be used, as in the vase with bittersweet in Fig. 265. Some of the flowers which are particularly beautiful in line are jonquils, lilies, and irises. Seed pods, pussy willows, and berries may also have lines of remarkable beauty. Fig. 266 shows flowers arranged in a mass. When flowers or berries are massed, the lines of the individual sprays are lost, and the primary interest is in the color of the plant. In the arrangement in Fig. 266 one is more aware of a colorful mass than of line. Such bouquets bring sparkle and richness into a room. Some of the flowers which are attractive in a mass

are peonies, lilacs, chrysanthemums, asters, and larkspur. (See Figs. 267 and 275.) There are many flowers—roses, nasturtiums, and poppies, for example—which have both beautiful line and color. Therefore, when only a few are

FIG. 265.—The outstanding quality of this flower arrangement is the rhythmic beauty of its line. This has been emphasized through the curves of the vase, in which there is a suggestion of repetition and completion of some of the lines of the bittersweet.

used in a container they are enjoyed for their line, but when these flowers are massed they will produce fine color. Even when one is working for the effect of color in a mass it is desirable to have flowers arranged rather loosely so that they may not appear crowded.

Color combinations. It is sometimes said that a bouquet should never contain more than one kind of flower, or more than one color. To be sure, such arrangements have perfect harmony, yet very interesting effects may be secured by combining suitable colors and textures. For example, a bowl of white daisies may receive a charming accent by the addition of some blue bachelor's buttons; and yellowish

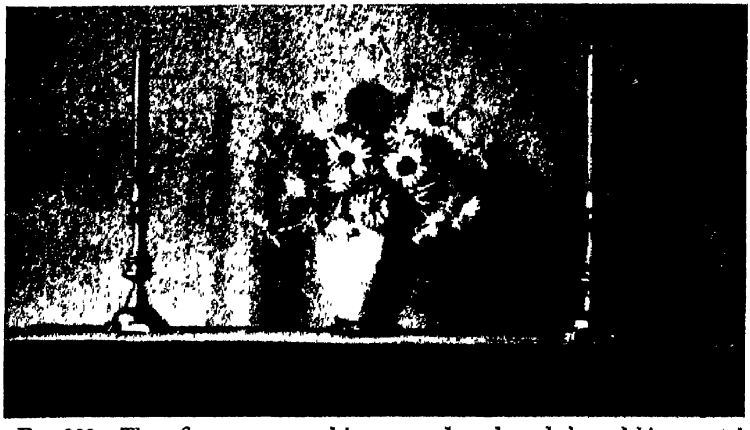


FIG. 266.—These flowers, arranged in a mass, have been balanced bisymmetrically, giving a formal appearance to the bouquet. The placing of the candlesticks has added to this effect of formality.

pink roses (Ophelia roses) combined with larkspur make a pleasing color and texture combination. In Fig. 267, daisies are used with larkspur; Fig. 272 is blue bachelor's buttons with the gay orange tones of the coreopsis; and in Fig. 266, blue bachelor's buttons and larkspur, dull yellow orange and red orange zinnias, and white daisies are placed in a jade-green vase on a black teakwood stand. The person who understands texture and color harmony will be able to make many of these delightful and entertaining combinations.

In selecting flowers for a room, the first consideration is the color scheme of the room. Flowers supply the exhilarating accents of color, and, as in the use of all bright color, they

should be chosen deliberately and carefully placed. The bright warm colors bring a note of gaiety into the room, while the flowers of cool colors have a subtle beauty. Does

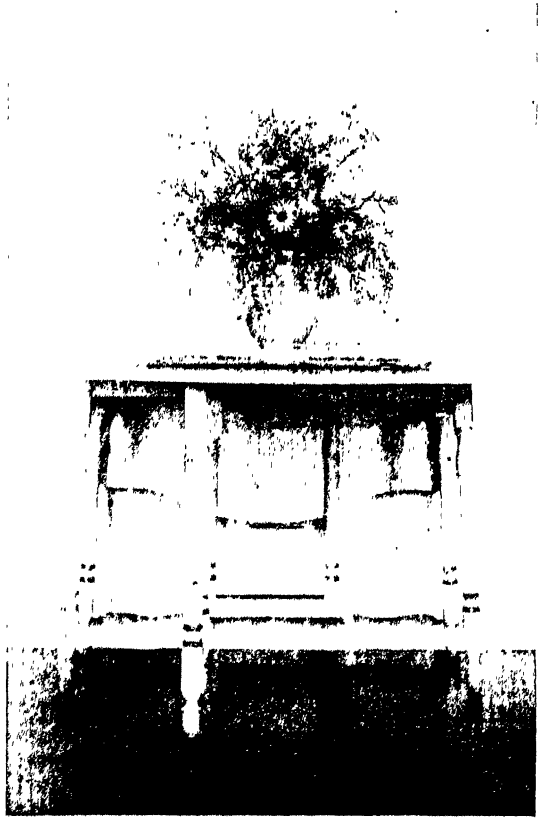


FIG. 267. The larkspur here was so arranged that a feathery mass of blue was the first impression one received. The sparkling accent of yellow and white of a few daisies carried a slight suggestion of the color of the dull, "smoky" yellow jar up into the bouquet, and helped to unify the arrangement.

the room need to be made more stimulating? If so, choose the warm colors which will harmonize with the general color scheme of the room. Yellow and yellow-orange flowers,—the colors of light—will fit into any color scheme, but bright

red-orange and bright red-purple need to be handled with care. Rooms which contain considerable amounts of orange

FIG. 268.—There is a lack of harmony between the textures of the pussy willows and the delicate glass vase. More rugged textures are preferable in combination with coarse or woody bouquets.

and scarlet do not successfully receive the purple and red-purple flowers. Flowers of these quarrelsome colors, bright red-orange and bright red-purple, should not be used to-

gether, for they destroy each other's beauty. This should be remembered when window boxes are being arranged, and

FIG. 269.—The objects here are different in color, texture, and form, yet they harmonize each with the other. The dull blue pottery vase, which suggests roughness in spite of its glaze, is related to the texture of the pussy willows. The addition of the pewter plate has emphasized the beauty of the arrangement, and the small black box, which repeats the colors of the pussy willows in the piece of carved jade set into the top, helps to complete a group which would add a decorative note to a room.

the flowers are being planted in the yard, for too frequently the charming effect of a window box of red-purple petunias,

for example, is lost because of the proximity of some salvia,

FIG. 270.—The conspicuous design on this vase detracts from a bouquet instead of enhancing it. In addition, this vase is not practical, for the neck is too narrow to admit enough air to keep the flowers fresh.

scarlet cannas, or geraniums. If a room seems cheerless, or a corner seems too dark, a bouquet of yellowish flowers will

seem to supply a glint of sunlight. On the other hand, the blue and the purple flowers will appear lost in the dark corners, and will be enjoyed most when they are placed in the light.

Selection of vases. A collection of good flower containers

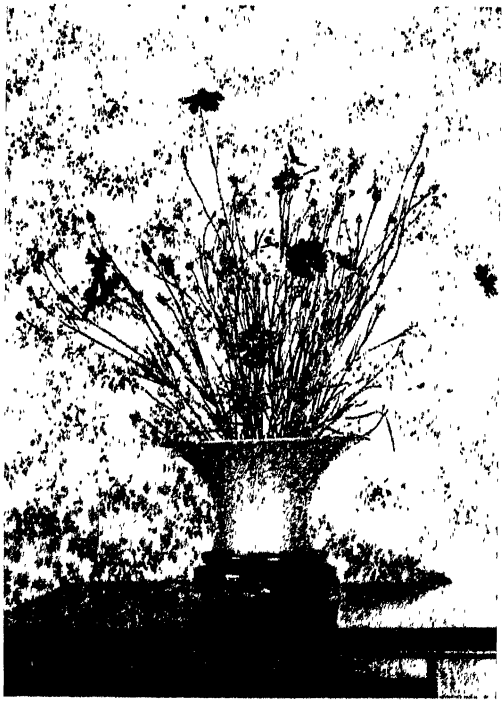


FIG. 271.—A figured background not only destroys the beauty of a flower arrangement, but it seems to compete with the flowers for interest. If a room has figured wall paper, flowers may be placed so that they will be seen against a window, or they may be separated from the wall by the placing of a tray or some other plain surface behind them.

does not necessitate a large expenditure of money. Simple, well-proportioned shapes of good color may be obtained without cost, or for very little. Snuff jars, ginger jars, olive and preserve bottles, and bean jars may make excellent con-

tainers. The colors which are generally useful for vases are putty color and other soft earth colors, wood browns, soft dull blues, grayed greens and black. Clear glass makes a good container for most flowers. However, flowers whose

FIG. 272.—The plain background behind these flowers has made it possible to enjoy their most delicate colors. A comparison of the above picture with FIG. 271 shows that the lighter flowers which are seen here are practically lost against the pattern in the background of the other picture. This container is worthy of notice, for its lines are good, it is suitable for many varieties of flowers, it is inexpensive, and it is a type which is easily found in the shops.

heads seem heavy for their stems present a more balanced appearance when they are placed in an opaque vase. Weeds, seed pods, and berries which have a rough texture are out of harmony with the delicate texture of glass, and should be

placed in pottery or in baskets. (Compare Figs. 268 and 269.) A vase which has as much emphasis in its design as the one shown in Fig. 270 should never be used as a flower container because the vase becomes as important as the flowers.

The natural growth of the flowers suggests the type of vase in which they should be placed. Short-stemmed flowers

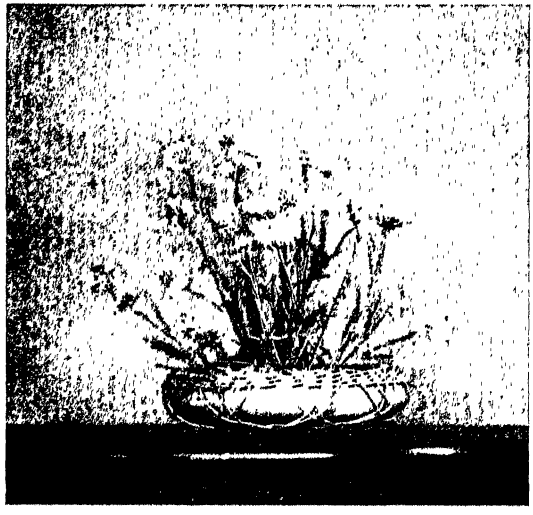


FIG. 273.—These short-stemmed flowers seem to grow naturally out of the low bowl which harmonizes so well with their texture.

should be put into low bowls, and long stems in high vases. (See Figs. 273 and 275.) While short flowers do not look well in high vases, as is seen in Fig. 274, tall flowers can be used successfully in low bowls if the diameter of the bowl is large enough to give the impression of balance. (Figs. 275 and 276.) The size of the vase should be in scale with the size of the bouquet. The pottery vase in Fig. 274 is as much too large for the bachelor's buttons, as the glass vase in Fig. 277 is too small for the daisies and snapdragons. The size of the bouquet in Fig. 278 is in better proportion to the size of the glass vase.

Placing the bouquet. Ordinarily flower arrangements are placed on tables, and so are seen below the level of the eye, thus permitting one to look into the bouquet and see the

FIG. 274.—This vase is too high for flowers with short stems. In order to keep the flowers from falling into the vase it becomes necessary to "bunch" them, so that it is not possible to secure a graceful arrangement. Compare this with the illustration in FIG. 273.

tops of the flowers. Fig. 273 was arranged for a low table, and when it was seen in the room one was scarcely conscious of stems, but rather, of a mass of blue flowers. This photograph, taken at the level of the eye, shows that when the

Fig. 275.

Fig. 276.

Figs. 275 and 276.—While tall flowers suggest the use of high containers, they may be equally attractive in low bowls where the beauty of the lines of their stems and foliage can be enjoyed.

bowl is raised the stems become as noticeable as the flowers. This would suggest that one should decide where the flowers are to be placed before beginning to arrange them, for any

FIG. 277.—This arrangement looks unbalanced, for the bouquet is too large for the size of the container. The even spacing of the four daises in the center gives a mechanical effect which is undesirable.

change in the height of its position will alter the appearance of the group. Tall flowers should be placed below, or on the level of the eye. If they are too high, they will carry the eye too quickly to the ceiling. If one wishes to place flowers

somewhat above the level of the eye, some drooping lines should be introduced into the bouquet which will carry the gaze downward toward the eye level.

FIG. 278.—Here flowers and vase are seen as a unit. The size of the bouquet is in scale with the vase, the textures are in agreement, there is variety in the arrangement, and the width of the opening allows the flowers to take natural, graceful lines.

Flowers can be enjoyed most thoroughly when they are placed against a plain background. Just as pattern in a vase detracts from the effect of the bouquet, so does a figured background. (Compare Figs. 271 and 272.) When flowers are used in a room which has figured wall paper it is well to place them on a table where they will not be seen against the

wall; or they may be placed where they will be seen as a silhouette against a window. A plain textile may be hung on a wall behind a flower arrangement to separate it from a figured background, or a tray may be placed behind the group, as shown in Figs. 24, 239, and 242.

FIG. 279.—This well shaped black bowl, with its simple decoration of gray lines, makes a delightful holder for flowers of many varieties and colors. In this arrangement are seen interesting variations in the heights and sizes of the flowers, a pleasantly rhythmic movement, and a comfortable sense of balance which was secured by placing the largest flower above the center of the bowl and adjusting the others around it.

Whenever it is possible, it is well to group a flower arrangement with something in the room, so that it becomes an essential part of the decorative scheme rather than an isolated spot. A few books may help to unite a flower group with its neighbors; or the flowers may be placed near a

picture or mirror, or in front of a tray, so that an interesting group may be secured. (See Figs. 258, 269, 282, and 94.)

The arrangement of flowers. After having decided upon the

FIG. 280.—This arrangement is unbalanced because there is so much more to attract the eye on one side of the center than on the other.

colors, the position in the room, and a suitable container, one can begin to arrange the flowers. Balance is the first consideration, and the flower with the longest stem is usually placed so that its head comes above the center of the bowl.

Then the largest or the most conspicuous flowers should be placed around the center and balanced by less striking shapes or colors farther away. (Fig. 279.) When the large mass is placed too far toward one side the arrangement

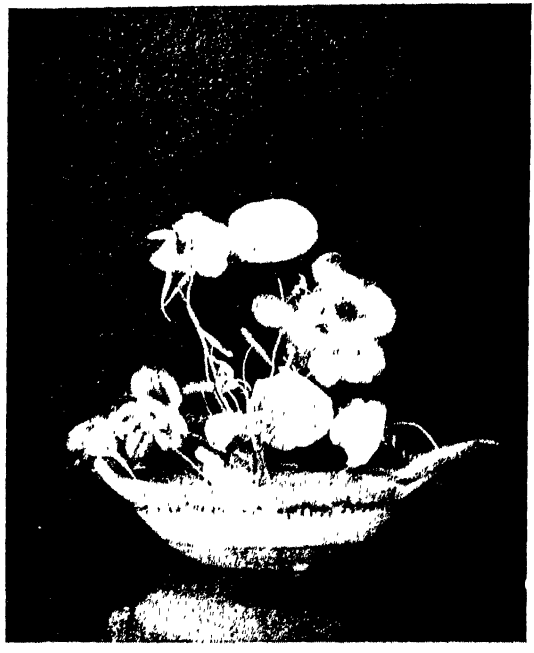


FIG. 281.—The rhythmic beauty of plant forms may be more fully realized when they are balanced informally than when they are placed in formal arrangements. This illustration shows much of the feeling of the natural growth of the nasturtium, and the shape and texture of the low pottery bowl are in accord with the flowers.

seems to tip. (Fig. 280.) Flowers may be balanced formally as in Fig. 266, or informally, as in Fig. 281. The formal arrangement is rarely used, for the graceful lines and forms of flowers seem to take naturally to the less obvious balance of the occult or informal arrangement. The problem of balancing flowers in their vases will be simplified if one remembers that the heavier mass should come toward the

center and that on each side of the center there must be an impression of equal attractions, although there need not necessarily be equal sizes.

Rhythm is the next consideration. The eye should be

FIG. 282.—Flower arrangements are most delightful when they are so placed that they seem to become a part of the furnishing of a room.

carried easily from one part of the bouquet to every other part. Rhythm may be gained through the use of rhyming lines, sizes, or colors. The bittersweet in Fig. 265 has

delightful rhythm in its line, and the clusters of berries show rhythmic gradations of size. Rhythmic lines and gradations of size are seen also in Fig. 279, while Fig. 281 shows rhythm in its line and in its variations in color. Unfortunately the rhythmic color in these flowers is barely suggested in the black and white photograph.

Beautiful proportions contribute as much to the enjoyment of a flower arrangement as any other factor. First one should be mindful of the size of the bouquet so that it may be consistent in scale with the objects around it; and second, the spaces between the flowers and the variations in the lengths of stem should be in pleasant relationship. When all the stems are of the same length there is an uninteresting monotony of line across the top of the bouquet. Flowers which are naturally stiff may appear rhythmic in an arrangement if their stems are cut so that the blossoms come at beautifully spaced intervals. Flowers which are equidistant from each other, such as the daisies in Fig. 277, are not so pleasing to the eye as when the spaces more nearly follow Greek proportions. (See Figs. 278 and 279.)

Flower arrangements for the dining room table. Flower arrangements which are suitable in type and in size for the average dining room table are seen in Figs. 199, 229, and 230. If a flower arrangement appears rather small it may be enlarged and brought into scale with the table by grouping candlesticks with it. By remembering that the decoration should never interfere with the use of an object, one will avoid table decorations which are so high that they prevent persons sitting on opposite sides of the table from seeing each other. If a table is so large that the people opposite can not converse with each other, as is sometimes the case at a banquet, the flower arrangements may be as large as seems desirable for the size of the table. Low bowls harmonize best with the shape of the table, and when high bouquets are used they usually need to be brought into harmony with the

line of the table by the use of transitional sizes or shapes, unless there are drooping lines in the flowers or foliage. Candlesticks may furnish the transitional line, or one may use a lower bowl of flowers on either side of a high bouquet.

Winter bouquets. Flowering bulbs may be obtained so easily, and so many varieties of seed pods and berries stay beautiful throughout the winter, that one is not dependent upon hothouse flowers. Seed pods should not be painted or gilded, and it also shows poor taste to use artificial, wax, or paper flowers. Occasionally, in a period room, one may use flowers of glass, jade, or metal, which are so conventionalized that they are merely designs, and not in any sense an imitation of real flowers. But these should be used only in richly furnished rooms of the social type. In flower arrangement, as in all decoration, simplicity as well as sincerity should be the aim. A few flowers well arranged, and a few simple bouquets well placed add beauty and charm to any room, and they will seem to vitalize one's house, and to give it a spirit of friendliness.

CHAPTER XXIII

CITY PLANNING

City planning is an art problem in which one man plans the layout or the groundwork of the design, and then turns it over to the public who put in the details of the composition. It is as if Leonardo da Vinci, the artist who painted "The Last Supper" (Fig. 15), had planned the composition by placing a long oblong at the base of the picture, a figure against a smaller oblong in the center, and diagonal lines leading toward the central mass. Let us imagine this plan turned over to a number of men picked out at random on the city streets, and each man asked to select the details to be placed in the picture, within the boundary lines put down by Leonardo. Some of the people would have better taste than others; some might visualize the picture as a whole, but many would see only their share in it, and forget that the composition as a whole is more important than any of its parts. No matter if the details were badly chosen, the picture would still have the merit of a well organized plan; but if the artist could have supervised the choices the quality of the picture would have been safeguarded. It is safe to say that if "The Last Supper" had been produced in this manner, without the supervision of the artist, it would not have been one of the world's greatest pictures.

Artists are not obliged to work in this way, but unfortunately City Planning Boards are. Every person who erects a structure, plants a tree, or puts up a billboard or advertising sign, is taking an active part in an art problem, and is either increasing or diminishing the beauty of the entire plan.

In City Planning, as in all art problems, the structural

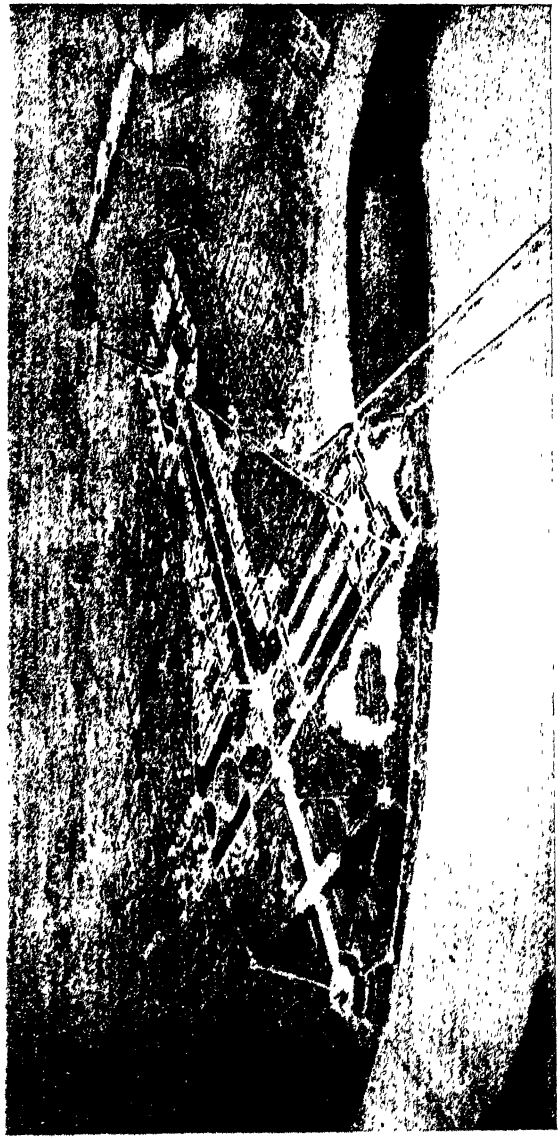


FIG. 283.—View of Washington from Arlington, Plan of 1901. (*Courtesy of the National Commission of Fine Arts.*)

The plan for the "Ultimate Washington," which is regarded as a standard of city planning. Although every city cannot have such beautiful buildings as are in Washington, any city can have an excellent plan which provides for streets laid out in an orderly way, which uses the land to good advantage, and which will not neglect to provide for open spaces and interesting views.

design is of first importance. This structural design must follow the principles of shape harmony, rhythm, and emphasis if it is to be beautiful. In addition, it must satisfactorily fulfil certain practical considerations if it is to be useful. A successful city plan will adequately fulfil all the present needs of the community, and, so far as it is possible to look into the future, it will allow for growth. The sociologic, economic, and sanitary conditions must, of course, be considered; but the art problem is no less important.

A standard for good structural design in City Planning was given to America by Major L'Enfant, a French Army Engineer who was appointed by President George Washington to lay out a plan for the city of Washington. A photograph of this plan including additions proposed by the Park Commission of 1901, is shown in Fig. 283.

A brief analysis of a good city plan, as illustrated in that of Washington, shows that, first of all, the streets are laid out in an orderly manner. There is enough regularity to make for an economical use of the land, with some diagonal streets and transitional lines to provide for interesting views. There are open park spaces to provide air, rest, recreation, and beauty for the people. There is a main center of interest—the National Capitol—and subordinate centers so beautifully placed that the whole plan is balanced. One is struck by the beautiful proportions seen here. Skyscrapers are not placed next to one-story buildings, there is a consistent relationship of sizes. As in all good designs there is unity in the whole plan, and enough variety in the details to hold the interest.

Not many cities can have as beautiful public buildings as Washington has, but there are other civic centers which may become centers of interest in a community. The schoolhouse, the city hall, the post-office, the churches, the railroad station, or a park, may be focal points to which the streets will lead.

Every American community, no matter how small, should have a plan for its future development. There is great significance in these words of Elihu Root: "I think that the existence of plans known to everybody will give just enough direction to the movement of the multitude of separate impulses to lead the growth of the city along the right lines."

In addition to a well made plan, every city should have an Art Commission, composed of members who have a real art appreciation. This group should pass judgment upon such matters as the designs and colors of the buildings to be erected, and the design and placement of billboards and advertising signs, as well as providing for the public parks and recreation grounds. If such a group were planning for the beauty of the city, we should no longer see monotonous rows of houses, as in Fig. 284. Nor would there be streets in which there is an incongruous assortment of houses which have nothing in common with each other. Each house in a block should be harmonious with all the others, even though all are different in material and design. (Fig. 285.) If a person has decided that he wishes to build a certain type of house, he should look for a neighborhood in which that type will seem to be consistent with other houses. However, if he must build on a certain lot, then he should study the other houses in the block, and select a design which will harmonize with them. Houses may be brought into harmony through the use of the same color of roof, as is demanded in Forest Hills Gardens on Long Island. There all the houses must have red tile roofs. Another way to unify a group of houses is to use the same general color tone,—that is, to avoid building a white house in the midst of a group of dark houses. Skillful planting will help to bring together all the houses in a block, and it will also serve to tie a house to its grounds. The general contour of a house should somewhat resemble its neighbors. A very low house, such as a small bungalow, is out of place among large houses which are

FIG. 254.—While unity is a merit in design, uniformity is a fault. This street is utterly lacking in interest because its houses have no individuality. Variety in planting could, to some extent, have overcome the monotonous appearance of this block.

FIG. 285.—This modest row of houses shows enough unity to be agreeable, while there is sufficient variety in the designs and materials used, to give individuality.

distinctly vertical in effect. Prospective builders may learn from their Art Commission that beautiful designs need not cost more than ugly ones, and that each person has a responsibility to the whole community to keep up the standards of beauty in his city, just as definitely as he is expected to keep up the standards for health, morals, and happiness.

We have only to look to Forest Hills Gardens to see what beautiful communities may result where there is a city plan, with a supervising body of architects to see that the plan is carried out. However, when a town has no City Planning Board, it becomes the responsibility of every citizen to study his community carefully and to plan appropriately, so that his buildings and grounds will enhance the neighborhood.

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